

**United States Department of the Interior  
Bureau of Land Management**

---

**Environmental Assessment  
DOI-BLM-UT-G021-2013-0021-EA**

---

**August 2013  
November 2013 Oil and Gas Lease Sale**

*Location:* Price Field Office  
Carbon County, Utah

*Applicant/Address:* U.S. Department of the Interior  
Bureau of Land Management  
Utah State Office  
440 West 200 South, Suite 500  
Salt Lake City, Utah 84145-0155

---

Price Field Office  
125 South 600 West  
Price, Utah 84501  
Telephone (435) 636-3600  
Fax (435) 636-3657



## CHAPTER ONE – PURPOSE AND NEED

### 1.1 Introduction

The Bureau of Land Management (BLM), Price Field Office (PFO) prepared this environmental assessment (EA) to analyze the environmental consequences of the sale of 75 parcels, approximately 137,441.45 acres, during the November 2013, competitive oil and gas lease sale. The EA is an analysis of potential impacts that could result from the implementation of a proposed action or alternatives to the proposed action. The EA assists the BLM in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any significant impacts could result from the analyzed actions. *Significance* is defined by NEPA and is found in regulation 40 Code of Federal Regulations (CFR) 1508.27. An EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a statement of Finding of No Significant Impact (FONSI). If the decision maker determines that this project has significant impacts following the analysis in the EA, then an EIS would be prepared for the project. If not, a Decision Record (DR) may be signed for the EA approving the selected alternative, whether the proposed action or another alternative. A DR, including a FONSI statement, for this EA would document the reasons why implementation of the selected alternative would not result in significant environmental impacts (effects) beyond those already addressed in the PFO Record of Decision and Approved Resource Management Plan (PFO ROD/RMP).

### 1.2 Background

On March 4, 2013, the BLM PFO received the preliminary oil and gas lease nominations from the BLM Utah State Office. These lands include 399 parcels (See Appendix B, Maps 1-4, and Appendix A, Parcel List and Appendix D, Deferred Lands List). There were 303 parcels which were deferred in accordance with Washington Office (WO) Instruction Memorandum (IM) 2010-117 (Leasing Reform), Part III A (parcel review timeframes); C.1 (gather and assess existing information). Deferral of 303 parcels was necessary because the PFO did not have time or resources available to analyze more than 75 parcels for the November 2013, Oil & Gas Lease Sale. There were 21 parcels removed from consideration because of coal resources. All the mineral rights and most of the surface for the 75 parcels (Appendix B, Maps 1-3) are managed and administered by the BLM PFO.

If a parcel is not leased by competitive bidding, it may be leased by non-competitive sale for the two years following the auction date. A lease may be held for ten years (43 CFR 3120.2-1), after which the lease would expire unless oil or gas is produced in paying quantities. A producing lease would be held indefinitely by paying production of oil or gas. These lands would be offered subject to applicable laws and standard lease terms. Standard lease terms provide for reasonable measures to minimize adverse impacts to specific resource values, land uses, or users (Standard Lease Terms are contained in Form 3100-11, Offer to Lease and Lease for Oil and Gas, U.S. Department of the Interior, BLM, June 1988, or later edition). Once the lease has been issued, the lessee has the right to use as much of the leased land as necessary to explore for, drill for, extract, remove, and dispose of oil and gas deposits located under the leased lands. Operations must be conducted in a manner that avoids unnecessary or undue degradation of the environment, and minimizes adverse impacts to the land, air, water, cultural, biological, and visual elements of the environment, as well as other land uses or users. Compliance with valid, nondiscretionary statutes (laws) is included in the standard lease terms and would apply to all lands and operations that are

part of all of the alternatives. In addition, lease operations would be subject to stipulations for surface disturbing activities prescribed in the 2008 PFO Record of Decision and Approved Resource Management Plan (2008 PFO ROD/RMP).

### **1.3 Purpose and Need of the Proposed Action**

The purpose of the proposed action is to provide parcels for inclusion in a competitive oil and gas lease sale to be held by the Utah BLM State Office in November 2013. The need for continued leasing is necessary to maintain options for production of oil and gas as companies seek new areas for production, or attempt to locate and develop previously unidentified, inaccessible, or uneconomical reserves.

The sale of oil and gas leases is needed to meet the growing energy needs of the United States public. The BLM is required by law to review areas that have been nominated and there has been steady interest in oil and gas exploration in the PFO area. Utah is a major source of natural gas for heating and electrical energy production in the lower 48 states. Continued sale and issuance of lease parcels maintains options for production as oil and gas companies seek new areas for production or attempt to develop previously inaccessible or uneconomical reserves.

Oil and gas leasing is a principal use of the public lands as identified in Section 102(a)(12), 103(1) of the Federal Land Policy and Management Act of 1976 (FLPMA), and it is conducted to meet requirements of the Mineral Leasing Act of 1920, as amended, the Mining and Minerals Policy Act of 1970, and the Federal Onshore Oil and Gas Leasing Reform Act of 1987 (Reform Act). Leases would be issued pursuant to 43 CFR subpart 3100.

### **1.4 Conformance with BLM Land Use Plan**

Within the PFO ROD/RMP (as maintained), Appendices R-3 (Stipulations for Surface Disturbing Activities), R-5 (Best Management Practices for Raptors and their Associated Habitats), and R-14 (Fluid Mineral Development Best Management Typical Practices) contain pertinent stipulations, lease notices and committed measures. The proposed action is in conformance with the applicable Land Use Plan (LUP) because it is specifically provided for in the following decisions:

#### **MLE-5 (page 125 PFO ROD/RMP)**

The BLM has identified LUP leasing allocations for all lands within the Price Field Office. In addition, the Proposed RMP describes specific lease stipulations (Appendix R-3) that apply to a variety of different resources including raptors, greater sage grouse, and big game habitat, as well as program-related Best Management Practices (Appendix R-14) that may be applied on a case-by-case basis, site-specific basis to prevent, minimize, or mitigate resource impacts (Map R-8).

#### **MLE-6 (page 125 PFO ROD/RMP)**

Review all lease parcels prior to lease sale. If the Price Field Office determines that new resource data information or circumstances relevant to the decision is available at the time of the lease review that warrants changing a leasing allocation or specific lease stipulation, the Price Field Office will make appropriate changes through the plan maintenance or amendment process. The Price Field Office may also apply appropriate conditions of approval at the permitting stage to ensure conformance with the LUP and all applicable law, regulation, and policies. (Department of the Interior, 2008).

#### **MLE-9 (page 126 PFO ROD/RMP)**

Oil and gas leasing management will be conducted as shown on Map R-25a.

- Areas open to leasing subject to the standard terms and conditions of the lease form (1,161,000 acres)
- Areas open to leasing subject to moderate constraints (timing limitations; CSU, and lease notices) (467,000 acres)
- Areas open to leasing subject to major constraints (NSO) (282,000 acres)
- Areas unavailable to leasing (569,000 acres)

The combination of all restrictions on oil and gas development is shown on Map R-26a.

The proposed action is also consistent with PFO ROD/RMP decisions and objectives as they relate to the management of the following resources (including but not limited to): air quality, BLM natural areas, cultural resources, recreation, riparian, soils, water, vegetation, fish and wildlife, and Areas of Critical Environmental Concern (ACEC). Additional RMP decisions are specified in Chapter 3 or the ID team checklist. In addition, site visits were conducted on the proposed parcels to verify consistency with the PFO ROD/RMP.

### **1.5 Relationship to Statutes, Regulations, or Other Plans**

The proposed action is consistent with federal laws and regulations, Executive Orders, and Department of the Interior and BLM policies and is in compliance, to the maximum extent possible, with state laws and local and county ordinances and plans, including the following:

- Federal Land Policy and Management Act (1976) as amended and associated regulations found at 43 CFR 2800
- Taylor Grazing Act (1934) as amended
- National Historic Preservation Act (1966), as amended and associated regulations at 36 CFR Part 800
- Bald and Golden Eagle Protection Act (1962)
- Endangered Species Act (1973), as amended

- Migratory Bird Treaty Act (1918)
- Executive Order 13186: Responsibilities of Federal Agencies to Protect Migratory Birds
- MOU between the USDI BLM and USFWS to Promote the Conservation and Management of Migratory Birds (4/2010)
- Mineral Leasing Act (1920), as amended and supplemented and associated regulations found at 43 CFR 3100
- Utah Standards and Guidelines for Rangeland Health (1997)
- BLM Utah Riparian Management Policy (2005)
- BLM Manual 6840 - Special Status Species Management
- Utah Supplemental Planning Guidance: Raptor Best Management Practices (BLM UT SO IM 2006-096)
- Oil and Gas Leasing Reform – Land Use Planning and Lease Parcel Reviews (BLM WO IM-2010-117)
- Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement (U.S. Department of Interior, Bureau of Land Management, June 2007)
- Price Field Office Record of Decision and Approved Resource Management Plan (2008)
- Price Field Office Final Environmental Impact Statement and Final Resource Management Plan (2008)
- State Protocol Agreement Between the Utah State Director of the Bureau of Land Management and the Utah State Historic Preservation Officer Regarding the Manner in which the Bureau of Land Management Will Meet its Responsibilities Under the National Historic Preservation Act and the National Programmatic Agreement Among the BLM, the Advisory Council on Historic Preservation and the National Conference of State Historic Preservation Officers (2001)
- MOU Among the USDA, USDI and EPA Regarding Air Quality Analysis and Mitigation for Federal Oil and Gas Decisions Through the NEPA Process (2011)
- Determining Conformity of Federal Actions to State or Federal Implementation Plans (40 CFR Part 93 Subpart E)
- Land Management Plan for Gordon Creek Wildlife Management Area
- Greater Sage-Grouse Interim Management Policies and Procedures (WO IM 2012-043)

- BLM Manual 6310 - Conducting Wilderness Characteristics Inventory of BLM Lands
- BLM Manual 6320 - Considering Lands with Wilderness Characteristics in the BLM Land Use Planning Process
- BLM Manual 6250 – National Scenic and Historic Trail Administration
- The National Trails System, Memorandum of Understanding, 06-SU-11132424-196, Among The United States Department of the Interior, Bureau of Land Management, National Park Service, United States Fish and Wildlife Service; United States Department of Agriculture Forest Service; United States Department of the Army, Corps of Engineers; and The United States Department of Transportation Federal Highway Administration (2006)
- National Park Service, National Historic Trail Feasibility Study and Environmental Assessment, Old Spanish Trail (2001)
- National Scenic and Historic Trails Strategy and Work Plan, BLM-WO-GI-06-020-6250
- Green River District Reclamation Guidelines (28 March 2011)
- Price Field Office Surface Disturbance Weed Policy (PFO ROD/RMP Vegetation Decision 10)
- BLM Price Field Office Visual Resource Management Inventory (2011)

These documents and their associated analysis are hereby incorporated by reference, based on their use and consideration by various authors of this document. The attached Interdisciplinary Team Checklist, Appendix C, was also developed after consideration of these documents and their contents. Each of these documents is available for review upon request from the PFO. Utah's Standards for Rangeland Health address upland soils, riparian/wetlands, desired and native species and water quality. These resources are either analyzed later in this document or, if not impacted, are also listed in Appendix C.

## **1.6 Identification of Issues**

The proposed action was reviewed by an Interdisciplinary Team (IDT) composed of resource specialists from the PFO. This team identified resources in the parcel areas which might be affected and considered potential impacts using current office records, geographic information system (GIS) data, and site visits. The results of the IDT review, including a list of all resources/issues that are analyzed in detail within this EA are contained in the Interdisciplinary Team Checklist, which is included as Appendix C.

Letters were sent to the private landowners on February 26, 2013 to solicit their comments and concerns about the pending lease sale.

On February 13 and 14, 2013, notice of the lease sale, parcel locations and an invitation to attend the site visit was provided to the National Park Service, the United States Fish and Wildlife Service and the State of Utah's Public Land Policy Coordination Office and the State Institutional Trust Land Administration Office. The IDT conducted site visits to the proposed parcels on April 2, 3, 4, 23rd, and May 14th to validate existing data and gather new information in order to make an informed leasing recommendation.

The Utah Division of Wildlife Resources participated in parcel visits on April 3rd and 23rd. None of the other outside agencies contacted the PFO expressing interest in attending the site visits.

The deadline for the public to nominate areas or otherwise submit Expressions of Interest (EOI) was January 7, 2013. In accordance with WO IM 2010-117 (Leasing Reform), public notification will be initiated by entering the project information on the Environmental Notification Bulletin Board (ENBB)<sup>1</sup>, a BLM environmental information internet site on June 14, 2013. Additional information for the public is maintained on the Utah BLM Oil and Gas Leasing Webpage.<sup>2</sup> Additional information on public participation is available in Section 5.3.

Issues brought forward for more detailed analysis are:

- Air Quality
- Hydrology
- Threatened, Endangered, Candidate or Sensitive Plants
- Non-WSA Lands with Wilderness Characteristics
- Old Spanish National Historic Trail
- Areas of Critical Environmental Concern
- Recreation
- Visual Resource Management

## 1.7 Summary

This chapter has presented the purpose and need of the proposed project, as well as resources that could be affected by the implementation of the proposed project. In order to meet the purpose and need of the proposed project in a way that resolves the issues, the BLM has considered and/or developed a range of action alternatives. These alternatives are presented in Chapter 2. The potential environmental impacts or consequences resulting from the implementation of each alternative considered in detail are analyzed in Chapter 4 for each of the identified issues.

---

<sup>1</sup> Accessed online at: <https://www.blm.gov/ut/enbb/index.php>

<sup>2</sup> Accessed online at: [http://www.blm.gov/ut/st/en/prog/energy/oil\\_and\\_gas/oil\\_and\\_gas\\_lease.html](http://www.blm.gov/ut/st/en/prog/energy/oil_and_gas/oil_and_gas_lease.html)

## **CHAPTER 2 – DESCRIPTION OF ALTERNATIVES, INCLUDING THE PROPOSED ACTION**

### **2.1 Introduction**

This environmental assessment analyzes the Proposed Action and No Action alternatives. The No Action alternative is analyzed to provide a baseline for comparison of the impacts of the Proposed Action.

### **2.2 Alternative A – Proposed Action**

Seventy-five nominated parcels, containing approximately 137,441.45 acres within the jurisdiction of the PFO have been proposed for sale in the November 2013 Utah BLM State Office Oil and Gas Lease Sale. The parcels would be offered with resource protection measures consistent with the 2008 PFO ROD/RMP. Legal descriptions of each parcel can be found in Appendix A, and maps of the parcels can be found in Appendix B, Maps 1 – 3.

### **2.3 Alternative B – No Action**

The No Action alternative would not offer any of the nominated parcels for sale.

### **2.4 Alternatives Considered but Not Carried Forward**

#### **Leasing All Parcels Alternative**

A total of 399 parcels were nominated for sale in the PFO. An alternative was considered that included leasing all 399 parcels. Coal conflicts occur within 21 parcels and these parcels will not be considered for leasing. There are 80 acres in one nominated parcel which are within the Cleveland Lloyd Dinosaur Quarry National Natural Landmark (NNL) which will not be considered for leasing. There are a total of 303 parcels which were deferred as identified in section 1.2. All parcels that are deferred or that are closed to leasing are identified in Appendix D.



## CHAPTER 3 – AFFECTED ENVIRONMENT

### 3.1 Introduction

This chapter describes the affected environment (i.e., the physical, biological, social, and economic values and resources). Only those aspects of the affected environment that are potentially impacted (PI) in the Interdisciplinary Team Checklist are described in detail.

Issues were eliminated from analysis because they were either not applicable to the lands considered in the proposed action or the reviewing specialists did not consider the proposed action to represent a potential impact to these issues, under applicable leasing protective measures provided through the 2008 PFO ROD/RMP. Rationale as to why these resources or issues were not carried forward for analysis is also contained in the Interdisciplinary Team Checklist (Appendix C).

### 3.2 General Setting

The 75 parcels in the proposed action are located in Carbon and Emery County, Utah. Appendix A contains legal descriptions of these parcels. Appendix B, Maps 1- 3 show the locations of the parcels. The project area is situated in the Colorado Plateau physiographic province.

The parcels are located in the central and southern regions of the PFO area which is made up of the San Rafael Swell, Book Cliffs - Roan Plateau, and Mancos Shale Lowland sections of the Colorado Plateau (See Appendix B Map 11). These areas are south of the Uinta Basin where Upper Cretaceous and Lower Tertiary rocks rise upward from the north along the dip slopes of the basin to reach elevations of 8,000 to 10,000 feet. On the south end of the Uinta Basin the rocks are abruptly truncated in great erosional cliffs that descend to elevations around 5,000 feet in the Mancos Lowlands. The Book Cliffs are formed by Upper Cretaceous sandstones and shaly siltstones of the Mesaverde Group, including the Blackhawk Formation, Castlegate Sandstone, and the Price River Formation. To the northeast of the Book Cliffs, the Roan Cliffs are formed by the reddish-brown mudstone and sandstone beds of the Colton Formation (Paleocene-Eocene). Further to the northeast in Carbon County are other erosional rises, including the West Tavaputs Plateau and the Bad Land Cliffs that expose the Eocene Green River Formation. A dominant physical feature within the PFO is the San Rafael Swell occupying the majority of Emery County. This feature is a large northeast trending up warp approximately 75 miles long and 30 miles wide that is part of a much larger, double-plunging anticline structure. This large, regional fold exposes rocks of Pennsylvanian through Cretaceous age. Resistant beds of sandstone are exposed as hogbacks on the steeply upturned east flank of the anticline and are referred to locally as “reefs.” Three perennial rivers (the Muddy, San Rafael, and Price) flow eastward into the Green and Colorado River system. The majority of the parcels under analysis are located in the San Rafael Swell.

Bordering the San Rafael Swell on the north, west, and northeast sides is the Mancos Shale Lowland section, including Castle Valley and Clark Valley. The Upper Cretaceous Mancos Shale is an easily eroded rock formation and is exposed at the surface across much of this section, resulting in relatively low-lying areas. The landscape of the Mancos Lowlands is characterized by sloping, gravel-covered pediments, rugged badlands, and flat bottom alluvial valleys (Stokes 1986). Immediately southeast of the San Rafael Swell lies the Green River Desert Section of the Colorado Plateau characterized by Quaternary eolian deposits with scattered mesas and buttes of Jurassic bedrock exposed at the surface.

The PFO is located in central Utah, east of the Wasatch Mountains. The proximity of the Wasatch Mountains exerts a strong influence on the climatology and meteorology of the area. Areas east of the Wasatch Range are characterized by hot, dry summers and cold, dry winters. Air movement at this latitude is predominately from the west and northwest year-round.

The lower elevations receive less than 10 inches of precipitation annually. Higher elevations of the PFO receive more than 14 inches of precipitation annually. Snow amounts also are low east of the Wasatch Mountains. Average maximum temperatures in the area range from 97°F in July to 33°F in January. Average minimum temperatures range from 7°F in January to 58°F in July (BLM 1997, BLM 1999b).

### 3.3 Resource Issues Brought Forward for Analysis

The Interdisciplinary Team Checklist, Appendix C, indicates which resources of concern are either not present in the project area or would not be impacted to a degree that requires detailed analysis. Resources which could be impacted to a level requiring further analysis are described in this Chapter and impacts to these resources are analyzed in Chapter 4.

#### 3.3.1 Air Quality

The Project Area is located adjacent to the Uinta Basin, a semiarid, mid-continental climate regime typified by dry, windy conditions and limited precipitation. The San Rafael Swell, located just south of the Uinta Basin, is subject to abundant sunshine and rapid nighttime cooling. Wide seasonal temperature variations typical of a mid-continental climate regime are also common. Existing point and area sources of air pollution in and around the Uinta Basin include the following:

- Exhaust emissions (primarily CO, NO<sub>x</sub>, PM<sub>2.5</sub>, and HAPs) from existing natural gas fired compressor engines used in transportation of natural gas in pipelines;
- Natural gas dehydrator still-vent emissions of CO, NO<sub>x</sub>, PM<sub>2.5</sub>, and HAPs;
- Gasoline and diesel-fueled vehicle tailpipe emissions of VOCs, NO<sub>x</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>;
- Oxides of sulfur (SO<sub>x</sub>), NO<sub>x</sub>, and fugitive dust emissions from coal-fired power plants and coal mining and processing;
- Fugitive dust (in the form of PM<sub>10</sub> and PM<sub>2.5</sub>) from vehicle traffic on unpaved roads, wind erosion in areas of soil disturbance, and road sanding during winter months; and
- Long-range transport of pollutants from distant sources.

The San Rafael Swell is designated as unclassified under the Clean Air Act, meaning that adequate air monitoring is not available to make an attainment determination. NAAQS are standards that have been set for the purpose of protecting human health and welfare with an adequate margin of safety. Pollutants for which standards have been set include ground level ozone (O<sub>3</sub>) sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), and carbon monoxide (CO), and particulate matter less than 10 microns in diameter (PM<sub>10</sub>) or 2.5 microns in diameter (PM<sub>2.5</sub>). Airborne particulate matter (PM) consists of tiny coarse-mode (PM<sub>10</sub>) or fine-mode (PM<sub>2.5</sub>) particles or aerosols combined with dust, dirt, smoke, and liquid droplets. PM<sub>2.5</sub> is

derived primarily from the incomplete combustion of fuel sources and secondarily formed aerosols, whereas PM<sub>10</sub> is primarily from crushing, grinding, or abrasion of surfaces.

Ground-level ozone (O<sub>3</sub>) is a secondary pollutant that is formed by a chemical reaction between NO<sub>x</sub> and VOCs in the presence of sunlight. Precursor sources of ozone include motor vehicle exhaust and industrial emissions, gasoline vapors, some tree species emissions, wood burning, and chemical solvents. Ozone is generally known as a summertime air pollutant. Ozone is a regional air quality issue because, along with its precursors, it transports hundreds of miles from its origins. Maximum ozone levels may occur at locations many miles downwind from the sources.

Active year-round ozone monitoring in the Uinta Basin began in the summer of 2009 south of Vernal at two monitoring sites: Red Wash and Ouray. Since that time numerous other monitoring stations have been established and/or operated in the Basin. These monitoring sites have recorded numerous exceedances of the 8 hour ozone standard during the winter months (January through March). High concentrations of ozone are being formed under an “inversion” process whereby stagnate air conditions with very low mixing heights form under clear skies with snow-covered ground and abundant sunlight that, combined with area precursor emissions (NO<sub>x</sub> and VOCs), create intense episodes of ozone. Based on the monitoring to date, these episodes occur only during the winter months (January through March). This phenomenon has also been observed in similar types of locations in Wyoming and has contributed to a proposed nonattainment designation for Sublette County.

Winter ozone formation is a newly recognized issue, and the methods of analyzing and managing this problem are still in development. Existing photochemical models are currently unable to replicate winter ozone formation satisfactorily, in part due to the very low mixing heights associated with the unique meteorology of these ambient conditions. Based on the emission inventories developed for Uintah County, the most likely dominant source of ozone precursors in the Uinta Basin are oil and gas operations in the vicinity of the monitors. While ozone precursors can be transported large distances, the meteorological condition under which this inversion ozone formation is occurring tends to preclude transport. At the current time ozone exceedances in this area seem to be confined to the winter months during periods of intense surface inversions and low mixing heights. Work still remains to be done to definitively identify the sources of ozone precursors contributing to the observed ozone concentrations. In particular, speciation of gaseous air samples collected during periods of high ozone is needed to determine which VOCs are present and what their likely sources are.

The complete EPA Ouray and Redwash monitoring data can be found at:

<http://www.epa.gov/airexplorer/index.htm>

The complete NPS Dinosaur National Monument monitoring data can be found at:

<http://www.nature.nps.gov/air/Monitoring/MonHist/index.cfm>

The UDAQ conducted limited monitoring of PM<sub>2.5</sub> in Vernal, Utah, in December 2006. During the 2006-2007 winter seasons, PM<sub>2.5</sub> levels were measured at the Vernal monitoring station that were higher than the PM<sub>2.5</sub> health standard that became effective in December 2006. The PM<sub>2.5</sub> levels recorded in Vernal were similar to other areas in northern Utah that experience wintertime inversions. The sources of elevated PM<sub>2.5</sub> concentrations during winter inversions in Vernal, Utah, haven't been identified as of yet. The most likely causes of elevated PM<sub>2.5</sub> at the Vernal monitoring station are probably those common to

other areas of the western U.S. (combustion and dust) plus nitrates and organics from oil and gas activities in the Basin. This conclusion is supported by results of recent studies ongoing in the Basin.

It should be noted that the San Rafael Swell will have different emissions and meteorological conditions than the Uinta Basin. We expect the small additions from oil and gas parcel leasing to have a negligible impact. Air Quality monitoring in Price, Utah, does not show exceedances like that of the Uinta Basin.

Hazardous air pollutants (HAPs) are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental impacts. The EPA has classified 187 air pollutants as HAPs. Examples of listed HAPs associated with the oil and gas industry include formaldehyde, benzene, toluene, ethylbenzene, isomers of xylene (BTEX) compounds, and normal-hexane (n-hexane). There are no applicable Federal or State of Utah ambient air quality standards for assessing potential HAP impacts to human health.

Air quality meets the NAAQS (State Department of Environmental Quality and the Division of Air Quality Standards (Utah Division of Air Quality 2011 Annual Report)).<sup>3</sup> An “unclassified” designation indicates that sufficient air monitoring is not available to make a determination as to attainment status. For regulatory purposes an unclassified county is considered the same as attainment. The UDAQ 2012 annual report includes a 2011 triennial emissions inventory (EI) by county (see table below).

**Emissions Inventory (2011) (Measured in Tons per Year (TPY)).**

Pollutant	Carbon	Emery
PM <sub>10</sub>	1010.979	1792.626
PM <sub>2.5</sub>	618.487	678.873
SO <sub>x</sub>	8370.740	7243.353
NO <sub>x</sub>	6132.159	21511.124
VOC	16847.970	32123.164
CO	8293.984	21686.845

Although not listed as a NAAQS criteria pollutant, volatile organic compounds (VOC) are also considered in this EA as they, along with NO<sub>x</sub>, are precursors to the formation of ozone and are listed by UDAQ as a pollutant that, if the threshold is exceeded, would require an approval order.

This EA addresses mobile off road engine exhaust emissions from drilling activities, venting and flaring emissions from completion and testing activities, emissions from ongoing production activities, and fugitive dust emissions, specifically emissions of total particulate matter of less than 10 micrometers (PM<sub>10</sub>), from heavy construction operations. PM<sub>10</sub> emissions are converted from total suspended particulates by applying a conversion factor of 25%. PM<sub>2.5</sub> is not specifically addressed as it is included as a component of PM<sub>10</sub>. PM<sub>2.5</sub> is converted from PM<sub>10</sub> by applying a conversion factor of 15%. This EA does not consider mobile on road emissions as they are dispersed, sporadic, temporary, and not likely to cause or contribute to an exceedance of the NAAQS.

---

<sup>3</sup> Accessed online on 6/6/13 from <http://www.airquality.utah.gov/Public-Interest/annual-report/pdf/2012Annual%20Report.pdf>

Greenhouse gases keep the planet's surface warmer than it otherwise would be. But, as the concentrations of these gases continue to increase in the atmosphere, the Earth's temperature is climbing above past levels. According to NOAA and NASA data, the Earth's average surface temperature has increased by about 1.2 to 1.4° F in the last 100 years. The eight warmest years on record (since 1850) have all occurred since 1998, with the warmest year being 1998. However, according to the British Meteorological Office's Hadley Centre (BMO 2009), the United Kingdom's foremost climate change research centre, the mean global temperature has been relatively constant for the past nine years after the warming trend from 1950 through 2000. So while most scientists believe that Earth will continue to warm in the future, this warming has not occurred for the past ten years. Therefore, quantified or globally accepted predictions on the ultimate outcome of global warming are still unknown. The warmest year on record was 1998, a year associated with the most intense El Nino global phenomena ever experienced. Most of the warming from 1950 through 2000 is speculated to be the result of human activities. Other aspects of the climate, such as rainfall patterns, snow and ice cover, and sea level, are also changing.

### 3.3.2 Hydrology

#### *Hydrology Conditions*

The lease areas have a varied landscape described as extreme slopes over 70% to flat valley floor, with many of the upper slopes being high soil production due to the character of the parent material. Soil type is a product of topography, climate, vegetation, and parent material. These factors vary widely in the parcels being considered. The topography varies from steep hill slopes of over 70% to flat valley floor. Elevations of over 7000 feet above mean sea level (MSL) are where the steeper slopes are found, to the lower elevations near 4400 feet above MSL where the valley floor is dominated by flatter lands that are commonly crossed by gullies. The valley floor is commonly interrupted by buttes. The higher elevations are in the northern to central locations and the lower elevations, the valley floor is spread throughout. In the center of the parcels and trending to the south is the feature known as the San Rafael Swell. This feature is a large landscape up to elevations of over 7000 feet above MSL and is bound by the San Rafael River to the East, the Dirty Devil to the south, and the Muddy Creek to the west.

The climate here is a dry almost sub-desert region. Rainfall varies throughout with annual precipitation of over 15 inches on the higher slopes in the northern parcels to less than 6 inches on the southern valley floors. Temperatures range from less than -20 degrees F. on the higher locations in the winter to over 100 degrees on the valley floor during the summer. Detailed climate and meteorological data can be found in the Final Air Quality Baseline and Analysis Report – Price Resource Management Plan (Booz Allen 2008).

Dominant vegetation types are pinyon-juniper on the upper slopes and high flats to salt desert shrub on the valley floor. The vegetation type is driven by climate, elevation, and soil type.

The parent material varies widely due to the geologic nature of the area's history. The exposed formations contribute a wide variety of texture and chemical characteristic soil types. These formations are described as modern and quaternary unconsolidated soils in the higher elevations, moving back to older sandstones, mud stones and down to the Mancos shale, a clay/silt saline formation created from salt ocean bottom, at the valley floor. There are some older exposed sandstones and shales below the Mancos. Combined with the varied elevations, many plant communities and the multiple climates, the area is rich in soil combinations. As a result, there are stable soils with high soil production, desert soils that are highly

erodible, and various others that are classified in between. The result is a complex landscape filled with a myriad of geomorphic experiments.

Water from winter snows and late summer monsoons create runoff patterns that cut small mountain canyons off the mountains and deep desert chasms and majestic canyons cutting through the flat lands pushed up by the San Rafael Swell. This feature is a large northeast trending upward approximately 75 miles long and 30 miles wide that is part of a much larger, double-plunging anticline structure. This large, regional fold exposes rocks of the Pennsylvanian age through the Cretaceous age. Resistant beds of sandstone are exposed as hogbacks on the steeply upturned east flank of the anticline and are referred to locally as “reefs.” Three perennial rivers (i.e., Muddy, San Rafael, and Price) flow eastward into the Green and Colorado River system (see Price Field Office RMP Map 1-1). Rills and gullies are common. The desert environment typically transports storm and seasonal runoff through rills and gullies because there is little vegetation to retard overland flows due to the saline and sodic soils on the flat lands.

### *Flood Hazards*

The watersheds upstream of existing towns in the PFO are in mixed ownership of federal, state, and private land. Some areas of public land are on steep terrain with clayey, stony, and shallow soils. These areas have high runoff potential, and surface-disturbing activities can change the duration and peaks of runoff events reaching the streams. Debris jams and channel bank erosion on these lands can cause flooding and sediment damage to private agricultural land, irrigation works, buildings, roads, and other structures. The structures most often affected by peak runoff events on public lands are water and erosion control structures, stock ponds, and roads, which often follow canyon floors and cross-stream channels.

### *Water Quality*

Salt and sediment yield is of major concern in the Colorado River Basin, and erosion on public lands is one source of sediment and associated salts in the PFO. Some of this is natural or resulting from relatively stable conditions in a semiarid or arid climate regime with periodic, high-intensity storms. In the upper Colorado River Basin, salt enters the Colorado River and its tributaries from groundwater flows, surface runoff, and from non-point sources such as saline springs and flowing wells. Dissolution of geologic evaporate deposits results in highly saline groundwater that ultimately contributes a large amount of salt to the Colorado River system. Surface runoff from BLM-administered lands on the entire Colorado Plateau are estimated to contribute less than 15 percent of the total salt load, and the PFO would be a smaller portion of that total contribution. Controlling salinity in rangeland surface runoff is closely related to vegetation management and minimizing soil erosion, especially in areas that have saline or sodic soils.

Saline geologic formations and slightly too highly saline soils are extensive in the PFO. Major salt-bearing formations in the PFO include the Summerville, Moenkopi, Carmel, Curtis, Morrison, Cedar Mountain, and Mancos Saline geologic formations and slightly to highly saline soils are extensive in the PFO. Major salt-bearing formations in the PFO include the Summerville, Moenkopi, Carmel, Curtis, Morrison, Cedar Mountain, and Mancos (BLM 1991a). Badlands and gypsumlands are natural sources of sediment and salt. These areas lack vegetation, but they frequently have a thin mantle of hard shale, rock fragments, or soil crusts, which provides some stability and helps prevent surface erosion. Badlands occur mainly on exposures of the Morrison, Cedar Mountain, and Mancos Formations, whereas gypsumlands occur mainly on exposures of the Carmel and Summerville Formations. Present losses of sediment from badlands and gypsumlands are estimated at 5 to 50 tons per acre per year. These highly dissected areas,

with their steep slopes and intricate drainage patterns, are little used by livestock because of the lack of forage and the complex terrain. They are, however, used by wild horses and burros and big game species (i.e., bighorn sheep, deer, and elk). The main areas containing gypsumlands and gypsiferous soils are on the west flank of the San Rafael Swell to the Coal Cliffs and Molen Reef, and southeast of San Rafael Reef near Goblin Valley. Gypsumlands and gypsiferous soils occur with more stable soils in delineated areas, which make up more than half of the area (BLM 1991a).

Although they can inhibit vegetation growth, salts that are held deeper in the soil profile are generally not a major source of salinity to the Colorado River system, except along drainages where bank erosion or subsurface leaching occurs. However, several plants in the PFO (i.e., mat, saltbrush, halogeton, wedgeleaf, saltbrush, salt cedar, shadscale, greasewood, and fourwing saltbush) concentrate salts in their tissues. The salts are available for transport to the drainage system in plant litter. Badlands and gypsumlands are natural sources of sediment and salt. These areas lack vegetation, but they frequently have a thin mantle of hard shale, rock fragments, or soil crusts, which provides some stability and helps prevent surface erosion. Badlands occur mainly on exposures of the Morrison, Cedar Mountain, and Mancos Formations, whereas gypsumlands occur mainly on exposures of the Carmel and Summerville Formations. Present losses of sediment from badlands and gypsumlands are estimated at 5 to 50 tons per acre per year. These highly dissected areas, with their steep slopes and intricate drainage patterns, are little used by livestock because of the lack of forage and the complex terrain. They are, however, used by wild horses and burros and big game species (i.e., bighorn sheep, deer, and elk). The main areas containing gypsumlands and gypsiferous soils are on the west flank of the San Rafael Swell to the Coal Cliffs and Molen Reef, and southeast of San Rafael Reef near Goblin Valley. Gypsumlands and gypsiferous soils occur with more stable soils in delineated areas, which make up more than half of the area (BLM 1991a).

Although they can inhibit vegetation growth, salts that are held deeper in the soil profile are generally not a major source of salinity to the Colorado River system, except along drainages where bank erosion or subsurface leaching occurs. However, several plants in the PFO (i.e., mat, saltbrush, halogeton, wedgeleaf, saltbrush, salt cedar, shadscale, greasewood, and fourwing saltbush) concentrate salts in their tissues. The salts are available for transport to the drainage system in plant litter.

Soils rated very high in salinity (greater than 16 millimhos per centimeter [mMhos/cm]) are found mostly in eastern Emery County, with a few small areas scattered throughout eastern Carbon County (BLM 1997). Soils rated moderate to high in salinity (i.e., 4 to 16 mMhos/cm) occupy mostly the eastern half of the PFO (BLM 1997). Soils rated low in salinity (i.e., less than 2 mMhos/cm) are primarily found on the western half of the PFO at higher elevations (BLM 1997).

### *Surface Water*

The Lower Green River (within Hydrologic Unit Code [HUC] basin 14060008) and two of its major tributaries, the Price River (within HUC basin 14060007) and San Rafael River (within HUC basin 14060009), are within the major watershed units in the PFO. Numerous smaller perennial, intermittent, or ephemeral stream channels, with an array of flow regimes and uses, are located throughout the PFO, with smaller segments located near springs or headwaters. The BLM manages approximately 1,200 stock watering reservoirs, most of which are filled with runoff via ephemeral channels.



### *Groundwater*

The PFO is nearly all underlain by a series of consolidated sedimentary formations. All the geologic units contain some water, but only five are considered to be major aquifers: Entrada, Navajo, Wingate Sandstones, Coconino Sandstone (including its equivalents in the Cutler Formation), and rocks of the Mississippian age. Several other formations are at least locally important, including the Carmel Formation, the Salt Wash Sandstone member of the Morrison Formation, the Curtis Formation, and the Moss Back Member of the Chinle Formation (BLM 1991a). The formations are encountered at elevations ranging from surface outcrops to more than 2,000 feet below the surface.

Groundwater supplies are controlled more by recharge conditions than by use depletions. Precipitation is the ultimate recharge source. Areas with exposed permeable formations and regional fracture systems, where average annual precipitation is more than 12 inches, usually are recharge areas (BLM 1991a). Groundwater moves from these areas of recharge, discharges to stream valleys flowing from the Wasatch Plateau and Bookcliffs, and recharges the major aquifers underlying the PFO. Groundwater is a part of the developed water supply for municipalities in the PFO. Price City, Helper, Wellington, and East Carbon all use groundwater for portions of their municipal water supplies. The BLM also manages wells, which use water from perched aquifers. There are numerous private domestic wells within the region.

Groundwater disposal is a large aspect of coal bed natural gas development. Saline water pumped from coalbed natural gas wells throughout the PFO is re-injected because of its high total dissolved solids (TDS).

### **3.3.3 Water Quality**

#### *Surface Water Quality.*

On public lands in the Colorado River Basin, the primary factors affecting surface water quality are runoff events containing appreciable sediments and salts. Runoff from public lands tends to accumulate salts and sediment from surface soils and from saline soils in drainages and transport them into the main drainages during intense localized storms. Runoff adds to the salt content of the irrigation return flow carried by the Price River and San Rafael River. When the amount of runoff increases due to storms or snow melt, discharges into streams tend to be greater and of shorter duration, increasing channel cutting and sometimes flooding. The U.S. Geological Survey (USGS), and the State of Utah have established a gauging network on the San Rafael River, Price Rivers and their major tributaries to monitor salt content and compliance with water-quality standards on major stream segments.

Water quality comprises the measured physical, chemical, and biological characteristics of the streams in the area. The target parameters are set by the State and federal regulations for particular stream segments or particular water uses. Pursuant to Section 303(d) of the Clean Water Act (CWA) as amended, each state is required to identify those water bodies for which existing pollution controls are not stringent enough to implement State water-quality standards. Thus, those water bodies not currently achieving or not expected to achieve those standards are identified as “water quality limited.” A water body can be water quality limited because of point or non-point sources of pollution or both. In addition to common sources of pollutants, there can be pollutants resulting from habitat alterations or hydrological modifications (UDWQ 2002).

A full list of streams located in the project area and shown on Utah’s 2010 303(d) list appears in the table below. With few exceptions, stream water bodies assessed as “partially supporting” or “not supporting”



their beneficial uses were listed. In addition, water bodies for which a total maximum daily load (TMDL) has been completed and approved by the EPA were not listed.

### Utah's 2010 303d List

<i>Waterbody Name</i>	<i>Waterbody Description</i>	<i>Cause</i>
<i>Price River 3</i>	<i>Price River from Coal Creek confluence to Carbon Canal Diversion</i>	<i>Benthic-Macroinvertebrate Bioassessments</i>
<i>Upper San Rafael River</i>	<i>San Rafael River from Buckhorn Crossing to confluence of Huntington and Cottonwood Creeks</i>	<i>Benthic-Macroinvertebrate Bioassessments</i>
<i>Lower San Rafael River</i>	<i>San Rafael River from confluence with Green River to Buckhorn Crossing</i>	<i>Benthic-Macroinvertebrate Bioassessments</i>

### *Groundwater Quality*

Groundwater quality is highly variable, depending on the formation in which the aquifer is located and on the well location. Groundwater contamination is a continuing concern.

### *Soils*

General and detailed soils information for part of the PFO is contained in the Soil Survey of Carbon-Emery Area, Utah (USDA SCS 1970) and the Soil Survey of Carbon Area, Utah (USDA SCS 1988). These two surveys cover all of Carbon County and much of the private land in the northwestern portion of Emery County. Draft soil survey information exists for portions of the remaining BLM lands in Emery County.

Soils vary based on landform, geology, vegetation, and climate. They range from shallow, poorly developed, and rocky soils on plateaus, cliffs, and ridges to deeper, more productive soils on alluvial fans and in valley bottoms. The dry climate and parent materials also affect development and concentrations of carbonates (lime), salts, and gypsum within the soils and rooting zones, in turn affecting plant growth and water movement. Some soils are extremely alkaline and have saline or sodic properties that affect their use and management. The Mancos Shale Lowlands are characterized by soils with distinctive features, including claypans and layers of gypsum, which contribute to their high erosion potential. The sandy parent materials to the southeast of the San Rafael Swell in the Green River Desert Section are characterized by deep, well-drained, fine sandy soils forming in stabilized and active dunes.

Information about existing soil condition, soil quality, and productivity exists in older soil vegetation inventory data, more recent rangeland health assessments, and big-game trend studies, as well as PFO records regarding the number of acres that have been developed for roads, recreation, and energy development, or have otherwise undergone various levels of surface disturbing activities. This information is used in conjunction with soil survey information in site-specific project analyses to design projects to minimize soil disturbance and maintain long-term soil health and productivity.

Some soils in the PFO have a high potential for contributing salt and sediment to drainages, high susceptibility to water or wind erosion when disturbed, and high runoff potential. Water erosion is a

function of rainfall, soil erodibility, length of slope, percentage of slope, vegetation cover, soil conditions, and management practices. Bank erosion is accelerated in stream channels as a result of damming practices, improperly functioning riparian systems, and hydrologically unstable streams. Soils have natural erosion rates that are a function of inherent soil properties, slope, aspect and climate, which, in turn, also determine the ability of the site to support vegetation. Accelerated erosion occurs when the plant cover is depleted or soil surface conditions are degraded. Management activities that affect vegetation or compact soil surface can also lead to accelerated erosion (NRCS 2001a). Roads, railroads, paths, and trails form continuous flow paths that are capable of channelizing water. As overland flow of water and sediment concentrates in these channels, water runoff changes from “sheet” to channelized flow, increasing the energy of the erosional forces.

Soils with surface textures that are highly susceptible to water erosion generally have a high proportion of coarse to very fine sands, or silts, with little binding material such as clay or organic matter. Loams and silty clay loams intermixed with barren shale, rubbleland, or rock outcrop are found widely distributed throughout the PFO. When the vegetation or biologic crust on these soils is removed, such as by surface disturbance, fire, or heavy grazing pressure, the soils are subject to accelerated erosion. Under good vegetation cover, soil loss is less than 1 ton per acre per year; with poor cover, soil loss can exceed 5 tons per acre per year. When these soils are disturbed, 10 tons per acre or more per year could be lost (BLM 1991a; NRCS 2001b; SCS 1970; SCS 1988).

Intense, often localized, convective storms from midsummer to early fall can flashflood dry washes and streams. This occurs most often in areas with high runoff potential, including extensive rock outcrop and badlands. These types of soils or miscellaneous land types occur in watersheds above the towns of Emery, Ferron, Castle Dale, Orangeville, and Huntington. The major stream channels throughout the PFO are subject to flooding from spring snowmelt at higher elevations. Soils are also subject to erosion along floodplains of major stream channels (BLM 1991a).

### **3.3.3 Threatened, Endangered, Candidate or Sensitive Plants**

Under Section 7 of the Endangered Species Act (ESA), the BLM is required to consult with the USFWS on any proposed action which may affect federally listed threatened or endangered species or species proposed for listing. Section 7 consultation efforts [a Biological Assessment (BA) and subsequent Biological Opinion (BO)] covering a wide variety of actions, including oil and gas leasing, associated with the current BLM land use plans in Utah was completed October 2008 (BLM 2008c). The BO includes species-specific lease notices that were developed during the Section 7 process. Informal consultation is conducted before each lease sale to ensure the appropriate lease notices from the BO are attached to the lease parcels. When habitat is thought to be present, these lease notices are to be attached to oil and gas leases offered in Utah.

Washington Office (WO) Instruction Memorandum (IM)-2002-174, directs that the BLM attach an Endangered Species Act stipulation to leases to protect threatened and endangered along with other special status species. According to this stipulation, the BLM will not approve any ground-disturbing activity until obligations under applicable requirements of the ESA have been fulfilled, including completion of any required procedure for formal or informal conference or consultation.

43 CFR 3162.1(a) provides the BLM with broad authority to ensure compliance of lessees with orders of the authorized officer issued for the protection of the environment. Conservation measures (lease notices and stipulations) as discussed above increase the likelihood that the BLM and by association, the lessee, will not have to complete formal Section 7 consultation at the project level; however it should be noted that BLM may be required to reinitiate Section 7 consultation at the project-level, as necessary, to ensure proper management of listed species in the future. Site-specific effects cannot be analyzed until an exploration or development application is received, after leasing has occurred. Until there is a site-specific proposal, there is no action directly or indirectly causing modifications to the land, water, or air.

San Rafael cactus (*Pediocactus despainii*)

The San Rafael Cactus is federally listed as endangered. San Rafael cacti occur primarily on BLM administered lands managed by the Price Field Office. However, no critical habitat is designated for this species. It is a small sub-globose cactus. The species is usually solitary stemmed, 3.8-6.0 centimeters (cm) tall and 3.0 to 9.5 cm in diameter. Habitat descriptions for this cactus vary. Typically the San Rafael cacti grows in fine textured, mildly alkaline soils rich in calcium derived from limestone substrates of the Carmel Formation and the Sinbad member of the Moenkopi formation and on shale barrens of the Brushy Basin member of the Morrison, Carmel and Dakota geologic formation. The vegetation community is characterized by open woodlands of scattered Utah juniper and piñon pine with an understory of shrubs and grasses.

Much of the year cacti shrink underground or back to ground surface, defending themselves against an annual cycle of extreme heat, drought and cold. Resurfacing in the spring appears to be dependent on winter and spring moisture. Flowering occurs from March to May with fruiting from May to June. Reproduction, seedling ecology and the overall effects of natural factors, such as disease, parasitism, grazing by native species, natural erosion and potential of vegetative competition on the viability of the species is still largely unknown.

Potential, suitable, and/or occupied habitat for the species has been identified in parcels UT1113- 6430, 6431, 6432, 6433, 6434, 6435, 6436, 6437, 6438, 6439, and 6440.

Wrights fishhook cactus (*Sclerocactus wrightiae*)

Wright's fishhook cactus is a perennial herb and a member of the cactus family. It is federally listed as endangered. Populations of Wright fishhook cactus occur primarily on lands managed by the BLM out of the Price and Richfield Field Offices and by the National Park Service at Capitol Reef National Park. However, no critical habitat has been designated for the species. Wright fishhook cactus typically grows as a single plant with a branched taproot. The stems are 1 to 8 cm long and 4 to 8 cm in diameter. Flowering occurs from early April through May and fruits are set in June. The stamens have magenta filaments with anthers that are yellow. The ecological amplitude of Wright fishhook cactus is wide, being found from clay badlands up to the pinyon-juniper habitat. Typically it is found on semi-barren sites in salt desert shrub, piñon/juniper woodlands, mixed grassland, and mixed desert shrub communities at elevations of 4200 and 7600 feet. The species occurs on a variety of geologic formations. However, it is most commonly found on the Curtis, Mancos Shale and Summerville Formations.

Potential, suitable, and/or occupied habitat for the species has been identified in parcels UT1113 – 6401, 6402, 6404, 6430, 6431, 6432, 6433, 6434, 6435, 6436, 6437, 6438, 6439, and 6440.

Last Chance Townsendia (*Townsendia aprica*)

Last Chance Townsendia is a member of the sunflower family; this species is a stemless perennial herb with flower heads submersed in its ground-level leaves. It is federally listed as threatened. Populations of last chance townsendia occur primarily on lands managed by the BLM out of the Price and Richfield Field Offices and by the National Park Service at Capitol Reef National Park. However, no critical habitat has been designated for the species. Although found association with several geological formations, it is limited to a small band within the shale derived soils of these formations, and has a very restricted distribution. Most known populations grow in soils derived from shale lens, that have a very fine silt texture and very high alkalinities and occur at the surface in small, isolated pockets. The flowers bloom in late April and May, and have yellow to golden petals.

Based on appropriate geology and elevation and nearby known locations there is potential habitat in UT1113 – 6401, 6402, and 6404.

Creutzfeldt flower (*Cryptantha creutzfeldtii*)

Creutzfeldt flower is a Utah BLM sensitive plant species, endemic to Carbon and Emery counties. This member of the Borage family is a perennial herb. The plant produces white flowers. Known occurrences of the species are found growing in mancos shale in shadscale and mat saltbush communities.

Based on appropriate geology and elevation and nearby known locations there is potential habitat in UT1113 – 6491, 6492, 6493, 6494, 6495, 6496, 6530, 6531, 6532, 6533, 6534, 6535, 6536, 6578, 6580, 6582, 6585, 6437, and 6440.

Jones' indigo bush (*Psoralea polydenius jonesii*)

Jones' indigo bush is a Utah BLM sensitive plant species, endemic to Emery County. This member of the legume (pea) family is an armed shrub 1.5 to 5 dm tall. The plant produces indigo colored flowers. Known occurrences occur on mancos shale, typically blue gate and tununk members.

Based on appropriate geology and elevation and nearby known locations there is potential habitat in UT1113-6656, 6659, 6660, and 6661.

Psoralea globemallow (*Sphaeralcea psoraloides*)

Psoralea globemallow is a Utah BLM sensitive plant species. This member of the mallow family is a perennial herb with distinct yellow green foliage. The plant produces orange flowers.

Based on appropriate geology and elevation and nearby known locations there is potential habitat in UT1113 – 6612, 6614, 6649, 6653, 6654, 6655, 6656, 6658, 6659, 6660, and 6661.

### 3.3.4 Non-WSA Lands with Wilderness Characteristics

Non-Wilderness Study Area (WSA) lands with wilderness characteristics are defined as areas having at least 5,000 acres in a natural or undisturbed condition that provide an outstanding opportunity for solitude and/or primitive forms of recreation. Many of these areas are adjacent to or contiguous with WSAs. Detailed information about non-WSA lands with wilderness characteristics is part of the administrative record for the Price ROD RMP/EIS (October 2008). The following records are incorporated by reference: (1) 1999 Utah Wilderness Inventory; (2) 1999 Utah Wilderness Inventory Revision Document for the Price Field Office; (3) 1999 Utah Wilderness Inventory case files for the Vernal Field Office; (4) Reasonable Probability Determinations for the Price Field Office; and (5) Documentation of Wilderness Characteristics Review for the Price Field Office. (Table 3-22 of the Proposed RMP/Final EIS).

The Price ROD RMP/EIS identified “BLM Natural Areas”, non-WSA lands with wilderness characteristics that would be managed for the protection of their wilderness values, as well as non-WSA lands with wilderness characteristics that, based upon the analysis in the Price RMP/EIS, would not be managed for their wilderness characteristics.

The proposed lease parcels intersect non-WSA lands within six distinct wilderness inventory areas (WIA). Specifically, the non-WSA lands with wilderness characteristics analyzed for this lease sale include are within the Price River, Eagle Canyon, Lost Springs Wash, Molen Reef and Desolation Canyon WIAs. (See Appendix B Map 5).

The Price ROD RMP/EIS (pages 35-36) made the determination that all of the non-WSA lands with wilderness characteristics within the proposed lease parcels would not be managed for those characteristics. There are no BLM Natural Areas present on the subject parcels.

#### *The Price River WIA*

The Price River WIA is large in size covering approximately 90,000 acres with wilderness characteristics. It extends from the mounds area on the north to the Cedar Mountain country on the south, with the Price River crossing through the northern half of the area and the Humbug country covering the southern half of the unit. During the PFO land use planning process, the Price River WIA non -WSA lands with wilderness characteristics were considered and thoroughly analyzed for the protection, preservation, and maintenance of those wilderness characteristics as well as for the impacts that could occur if other resource developments and uses were allowed. The Price River unit is located in an oil and gas development area with a moderate to high potential for future development (BLM, 2008b). Twenty-seven parcels are located within this WIA: 6499, 6500, 6502, 6503, 6504, 6505, 6506, 6507, 6508, 6509, 6510, 6511, 6512, 6513, 6514, 6542, 6543, 6544, 6545, 6546a, 6546b, 6550, 6552, 6556, 6587, 6588, and 6589.

#### *The Desolation Canyon WIA*

Approximately 211,220 acres of the nine-unit Desolation Canyon inventory area have wilderness character. Parcels 6660, 6659, and 6656 are located in unit 8 of the Desolation Canyon WIA. These parcels total approximately 1,513 acres. The Desolation Canyon units are a continuation of the many features and land forms found throughout the contiguous Desolation Canyon Wilderness Study Area (WSA). The nine units enhance the magnificent wilderness quality of the Desolation Canyon WSA. The

entire area has an irregular boundary, and is some 60 miles long north to south, and varies from 3 miles to over 30 miles wide east to west. Three parcels are located within this WIA: 6656, 6659 and 6660.

#### *Eagle Canyon WIA*

The unit is approximately 39,000 acres and is located in Emery County southeast of Castle Dale between the Wedge Overlook on the north and Interstate 70 on the south. Ten parcels are located within the WIA: 6431, 6432, 6433, 6434, 6435, 6436, 6437, 6438, 6439, and 6440.

#### *Lost Spring Wash WIA*

The unit is approximately 37,000 acres and is located in Emery County between Mexican Mountain WSA and US Highway 6. The unit covers an area of varied topographic features ranging from broken dissected badlands to pinyon-juniper woodlands and open sagebrush-grasslands. Eleven parcels are located within this WIA: 6612, 6614, 6649, 6653, 6654, 6655, 6656, 6658, 6659, 6660, and 6661.

#### *Molen Reef WIA*

The area is approximately 33,396 acres in size. The WIA is located in Emery County, east of the town of Emery and north of Interstate 70. The vegetation consists of scattered pinyon-juniper woodlands and open grasslands at higher elevations, while shrublands containing blackbrush, rabbitbrush, and various grasses are found at lower elevations. One parcel is located in this WIA: 6404.

#### *Mexican Mountain WIA*

The parcels affected are located in unit 6 of the Mexican Mountain WIA. The area is located in Emery County north of Interstate 70 about 15 miles west of Green River, Utah. The topography varies dramatically with dramatic canyons. The upland vegetation is dominated by pinyon-juniper woodland, while the lower elevation includes desert shrub land intermingled with grasses. One parcel is in this WIA area: 6614.

### **3.3.5 Old Spanish National Historic Trail (OST)**

The Old Spanish Trail is a National Historic Trail (NHT) which was established in the early 1800s as a trade, transportation, and communication corridor between Santa Fe and Los Angeles (See Appendix B Map 6). Multiple variants of the trail allowed travelers to take alternative routes or shortcuts based on the time of year, weather, size of the traveler's caravan, or the traveler's preference. Other notable travel routes in the project vicinity include the Rivera Expedition of 1765 and the Dominguez-Escalante expedition that crossed the Uintah Basin and continued through southwest Utah in 1776.

The Price Field Office RMP states on page 4 Appendix R-3 "NSO within Trail Springs/Lost Springs Wash segment of the Old Spanish National Historic Trail to retain the historic character of the trail."

Page 143 "Manage the Old Spanish Trail National Historic Trail (OST) for long-term heritage, recreational, and educational values. Manage National Landmarks to maintain or enhance the values for which they were designated."

Page 144 “Old Spanish Trail: Lost Springs Wash/Trail Springs Wash Segment (13 miles

total, 11 miles on BLM) Preserve the historic character of the landscape much as it existed at the time the trail was in use (1829–1848) while providing for recreation opportunities and other resources values. Manage this segment as follows: Oil and gas will be open to leasing subject to major constraints (NSO).”

Page 144 and 145 “Old Spanish Trail: Green River Crossing (via Cottonwood Wash) to Big Flat Segment (43 miles total, 31 miles on BLM). Preserve the historic character of the landscape much as it existed at the time the trail was in use (1829–1848) while providing for recreation opportunities and other resources values. Manage this segment as follows: Oil and gas will be open to leasing subject to minor constraints (timing limitations, CSU, lease notices).”

### **3.3.6 Areas of Critical Environmental Concern (ACEC)**

After review of the GIS/RMP data, it has been determined that lease parcels 6401, 6402, 6404, and 6440 contain portions of Short Creek - Rock Art ACEC. Parcel 6434 contains a portion of Molen Seep - Rock Art ACEC. Parcels 6435, 6436, 6438, 6439, 6440 contain portions of North Salt Wash - Rock Art ACEC. Parcel 6612 contains portions of the Big Hole-Rock Art ACEC. These sites are some of the best examples of prehistoric rock art in the Colorado Plateau.

Pages 133, 134 PFO RMP states ACEC will be maintained and will be managed in accordance with the IMP, where the IMP is more restrictive than the prescriptions below.:

- Archaeological inventories and test excavations will be required before site improvements or a designated route decision.

Management with the following special management prescriptions:

- Oil and gas will be open to leasing subject to major constraints (NSO)
- Closed to disposal of mineral materials
- Recommended for withdrawal from locatable mineral entry
- Excluded for ROW grants

On page 47 of the PFO RMP it states: “Of the 569,000 acres that are unavailable to oil and gas leasing, only 39,000 acres are outside WSAs and are a planning decision. These 39,000 acres are unavailable to oil and gas leasing by a discretionary decision because it is not reasonable to apply a no surface occupancy (NSO) stipulation because the areas are too large to reach the oil and gas mineral through directional drilling. The discretionary unavailable areas include non-WSA lands with wilderness characteristics and the Big Flat Tops and Cleveland-Lloyd Dinosaur Quarry ACECs.”

The remainders of the parcels are not found to be inside any ACEC.

### **3.3.7 Recreation**

The proposed action is located in both SRMA’s (Special Recreation Management Area) and in an ERMA (Extensive Recreation Management Area).

Page 37, PFO/RMP. “Visitors come from all over the nation, as well as the world, to specifically enjoy the attractions in the PFO. Visitors engage in an array of non-motorized and motorized recreation activities, many of which conflict with each other. Recreational activities include camping, scenic driving, enjoying natural and cultural features, hiking, backpacking, mountain biking, horseback riding, hunting, rock climbing, boating (rafting, canoeing, and kayaking), and OHVing, among others.”

Price RMP REC-14 says to conduct all recreation management activities and developments in the SRMA in support of the individual SRMA goals.

Page 38, PFO/RMP “The SRMAs designated in the Approved RMP enable the PFO to more actively manage the intensity, diversity, and potential incompatibility of recreation uses while protecting the resources that visitors come to enjoy. Recreation management zones within the SRMAs focus intense management of recreational user to create specific recreation experiences.”

Parcels that are located in the SRMA’s are as follows.

Almost all of 6508, a quarter of 6509 and a small portion of 6510 are located in the Cleveland Lloyd Dino Quarry SRMA. This SRMA is set up as a destination recreation management area for tourism in the Price RMP. Table R9-3.

Parcels 6401, 6402, 6404, 6432, 6433, 6434, 6435, 6436, 6437, 6438, 6439, 6440, 6512, 6513, 6514 and 6614 are located in the San Rafael Swell SRMA which is set up for the undeveloped recreation-Tourism with portions that are Destination areas associated with OHV use. Price RMP Table R9-5.

While the remaining parcels not listed above are located in our ERMA.

Price RMP Table R9-11 Management objectives are to Manage this ERMA to provide opportunities for a wide variety of motorized, mechanized, non-motorized, and non-mechanized recreational activities largely free from heavily restrictive regulations and management constraints in a variety of settings ranging from slot canyons, open landscapes with broad scenic vistas, slick rock expanses and slopes, badlands, rangelands, woodlands, forests, and wildland/urban interface. Route designations would allow visitors to access most terrain by motorized vehicle, while leaving large expanses of undeveloped back country in which to “lose oneself.” Implement criteria for SRPs to ensure that visitor safety is protected and resource conditions are maintained while providing for readily available recreational opportunities.

REC-67 Portions of the PFO not identified as a SRMA will be identified as an ERMA. ERMAs will receive only custodial management (which addresses only activity opportunities) of visitor health and safety, user conflict, and resource protection issues with no activity-level planning. Therefore, actions within ERMAs will generally be implemented directly from LUP decisions, such as Special Recreation Permits (SRP) or OHV management decisions. See Appendix R-9 for additional specific recreation management objectives for the PFO ERMA.

Page 36, PFO/RMP. The Never Sweat and Lost Springs Wash non-WSA lands with wilderness characteristics were not carried forward for protection, and contain a large trail system known as the Summerville/Chimney Rock/Humbug OHV trail system (61,000 acres). Current trends show that OHV use is and will continue to increase. Therefore, in order to continue to provide for this recreational opportunity BLM determined the better use of these non-WSA areas was for OHV recreational use. This



use conflicts with the solitude of these areas and BLM determined that this was not compatible with protecting, preserving, and maintaining the wilderness characteristics of the two areas.

### 3.3.8 Visuals Resource Management

The BLM is directed to manage public lands in a manner that will protect the quality of the visual (scenic) values in accordance with Section 102(a)(8) of FLPMA. The BLM Visual Resource Management (VRM) system provides the BLM with a methodological approach to identify visual (scenic) values; establish objectives for managing those values through the RMP process; and provide timely input into proposed surface-disturbing projects to ensure that the assigned objectives are met or intrusions are sufficiently mitigated (see table below). The VRM inventory process considers the scenic quality of the landscape, the sensitivity of the viewer, and the distance from the viewer to the landscape. Based upon these characteristics, the BLM assigns a VRM class to the lands under their jurisdiction, the objectives are as follows:

#### VRM Class Objectives

VRM Class	Objective
I	To preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.
II	To retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.
III	To partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.
IV	To provide for management activities that requires major modification to the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repetition of the basic elements.

The BLM has applied the VRM system on the public lands under their management with the overall objective being to minimize impacts resulting from human activities. The proposed Oil and Gas lease

sale occurs within Federal lands designated as VRM Class II, III IV. See Map 10. Thus, the BLM's objective for the Project Area with parcels 6500, 6502, 6545, 6546, 6508, and 6509 have portions that fall in the VRM Class II. Class II management directive is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape. Parcels 6491, 6492, 6493, 6494, 6495, 6530, 6531, 6533, 6535, 6578, 6580, 6499, 6500, 6502, 6503, 6504, 6505, 6506, 6507, 6508, 6509, 6510, 6511, 6512, 6513, 6514, 6542, 6544, 6541, 6543, 6546, 6587, 6589, 6588, 6649, 6612, 6614, 6654, 6653, 6655, 6656, 6659, 6658, 6660, 6661, 6430, 6431, 6432, 6401, 6440, and 6404 have portions that fall in the VRM class III.

VRM Class III is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape. The remainder and including some areas of the above listed parcels fall within VRM class IV. VRM Class IV is to provide for management activities that require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repetition of the basic elements.

The *BLM Price Field Office Visual Resource Management Inventory* (BLM 2011) establishes visual resource inventory (VRI) classes, which are used to assess visual values for the RMP. Visual management objectives are developed through the BLM's resource management planning process and reflect the resource-allocation decisions made in the RMP. According to *BLM Manual H-1601-1, Land Use Planning*, implementation decisions must be designed to achieve VRM objectives within each VRM class. VRM classes may reflect VRI classes, but they may not necessarily do so since management objectives for other resources as determined in the planning process may require different visual management needs. While the VRM system was used to inventory and classify the scenic (visual) resources for the Project Area, the VRI identifies the scenic quality, sensitivity levels, and distance zones and determines the VRI class, according to the VRM manual. The Project Area has been classified as a VRI class II, III and IV which serves as baseline information for assessing potential effects to visual resources.

### **Sensitivity Levels**

The evaluation of sensitivity levels in the VRM process provides a measure and an indication of the public's concern for scenic quality. Factors that contribute to the public's overall concern, as identified in *BLM Manual H-8410-1*, include the following:

- Types of Users – Visual sensitivity will vary with the type of users. Recreational sightseers may be highly sensitive to any changes in visual quality, whereas workers who pass through the area on a regular basis may not be as sensitive to change.

- Amount of Use – Areas seen and used by large numbers of people are potentially more sensitive. Protection of visual values usually becomes more important as the number of viewers increase.
- Public Interest – Visual quality of an area may be of concern to local, state, or national groups. Indicators of this concern are usually expressed in public meetings, letters, newspaper or magazine articles, newsletters, land-use plans, etc. Public controversy created in response to proposed activities that would change the landscape character should also be considered.
- Adjacent Land Uses – Interrelationship with land uses in adjacent lands can affect the visual sensitivity of an area. For example, an area within the view shed of a residential area may be very sensitive, whereas an area surrounded by commercially developed lands may not be visually sensitive.
- Special Areas – Management objectives for special areas such as natural areas, wilderness areas or WSAs, wild and scenic rivers, scenic areas, scenic roads or trails, and ACECs frequently require special consideration for the protection of the visual values. This does not necessarily mean that these areas are scenic but rather that one of the management objectives may be to preserve the natural landscape setting. The management objectives for these areas may be used as a basis for assigning sensitivity levels. Other factors include other information, such as research or studies, that includes indicators of visual sensitivity should also be considered when assigning sensitivity levels to an area.

While sensitivity levels can be based on physical attributes along with a thorough understanding of the sensitivity factors, distance zones can play an important role because sensitivity to changes in the visual landscape can be moderated by the level of detail or visibility of a potential change.

The *BLM Price Field Office Visual Resource Management Inventory* (BLM 2011) has identified the Oil & Gas lease sale Project Area as having a low sensitivity level for areas adjacent to highway 6 and moderate sensitivity level for the remainder of the project area. This level of sensitivity has been recognized and has resulted in the designation of the various rock art SCRMA's; designated because of its remoteness and the large number of pristine, undisturbed rock art sites. This SCRMA also contains limited access, scenic enjoyment, remoteness, and historic sensitivities.

### **Delineation of Distance Zones**

The analysis of distance zones in the VRM process considers the distance from which the area is generally viewed but does not take into account every possible viewing location. According to *BLM Manual H-8410-1*, landscape areas are generally subdivided into three distance zones based on their relative visibility from travel routes or other observation points:

- Foreground-Middle Ground Zone – Areas that are seen from major highways and other primary travel ways, rivers, trails, or other viewing locations that are less than 3 to 5 miles away. Management activities and proposed projects may be viewed in more detail in this zone.

- Background Zone – Areas that are seen beyond the foreground-middle ground zone to a distance of about 15 miles away. Activities and changes to the landscape in this zone would be generally less visible.
- Seldom-Seen Zone – Areas that are beyond the background zone, more than about 15 miles away from the viewing locations. Seldom seen areas also may not be visible within the foreground-middle ground or background zones or are generally hidden from view from those distances.

The viewing distances and sense of scale in this landscape are dependent upon the location of the viewer and include longer unobstructed views from the ridge tops, limited abrupt views toward the canyon walls, longer views framed and bordered by the canyon walls, and views associated with moving through a narrow canyon corridor. Widths of canyons vary, creating areas of various spatial proportions on the canyon floor. Some of these areas are narrow and constricted with very focused and framed views; whereas others are more open with broad views of expansive ridges.

The *BLM Price Field Office Visual Resource Management Inventory* (BLM 2011) has identified the Project Area North of Highway six as being located in a foreground-middle ground distance zone. While the area located around Flat Top Mountain, Lost springs wash and Moore cut off road contain foreground-middle ground with small areas containing background areas.

The Old Spanish Trail view shed is displayed on Map 12 located in Appendix B. The map shows the areas consistent with the foreground, middle ground, and background from the view of the casual observer on the trail. The areas where the greatest visual impact can be found are located in the low visibility zone. The low visibility zone is the area that can be seen only a small amount of time from the trails, but that observation is closer in proximity than the moderate and high visibility areas. The moderate and high visibility zones show the areas that are seen more often but from a greater distance by the casual observer. The map's key information highlights the areas of the parcels that are not visible from the trail. These areas are where the VRM requirements may be met.

## CHAPTER FOUR - ENVIRONMENTAL IMPACTS

### 4.1 Introduction

This chapter discusses the environmental consequences of implementing the alternatives described in Chapter 2. Under NEPA, actions with the potential to affect the quality of the human environment must be disclosed and analyzed in terms of direct and indirect effects, whether beneficial or adverse and short or long term, as well as cumulative effects. Direct effects are caused by an action and occur at the same time and place as the action. Indirect effects are caused by an action and occur later or farther away from the resource but are still reasonably foreseeable. Beneficial effects are those that involve a positive change in the condition or appearance of a resource or a change that moves the resource toward a desired condition. Adverse effects involve a change that moves the resource away from a desired condition or detracts from its appearance or condition. Cumulative effects are the effects on the environment that result from the incremental effect of the action when added to other past, present, and reasonably foreseeable future actions.

The No Action alternative (offer none of the nominated parcels for sale), serves as a baseline against which to evaluate the environmental consequences of the Proposed Action alternative. For each alternative, the environmental effects are analyzed for the resource topics that were carried forward for analysis in Chapter 3.

### 4.2 General Analysis Assumptions and Guidelines

Leasing is an administrative action that affects economic conditions but does not directly cause environmental consequences. However, leasing is considered to be an irretrievable commitment of resources because the BLM generally cannot deny all surface use of a lease unless the lease is issued with a No Surface Occupancy (NSO) stipulation. Potential oil and gas exploration and production activities, committed to in a lease sale, could impact resources and uses in the planning area. Direct, indirect, or cumulative effects to resources and uses could result from as yet undetermined and uncertain future levels of lease exploration or development. In order to provide a basis for analysis, the Reasonably Foreseeable Development (RFD) scenario is applied to each of the alternatives analyzed in detail. The RFD scenario is a long term projection of oil and gas exploration, development, production, and reclamation activity in a defined area for a specified period of time and serves as an analytical baseline for identifying and quantifying direct, indirect, and cumulative effects of oil and gas activity, under standard lease terms and conditions, on all potentially productive areas open to oil and gas leasing, and forms the foundation for the analysis of the effects of oil and gas management decisions.

In general, the BLM Utah State Office conducts a quarterly competitive lease sale to sell available oil and gas lease parcels in the state. In the process of preparing a lease sale, the BLM USO compiles a list of lands nominated and legally available for leasing, and sends a draft parcel list to the appropriate District Office where the parcels are located. District and field office staff then review and verify that the parcels are in areas open to leasing; that any new information that has become available, or any circumstances that have changed, are assessed to determine what level of analysis is required; that appropriate stipulations and notices can be included; that appropriate consultations have been conducted, when necessary; and that any special resource conditions are identified for potential bidders.

The field office then either determines that existing analyses provide an adequate basis for leasing recommendations or that additional NEPA analysis is needed before making a leasing recommendation. In most instances, an EA will be initiated for the parcels within the district or field office to meet the requirements of WO IM 2010-117. The EA results in a list of available lease parcels and stipulations or notices as part of the analysis. The EA and unsigned FONSI are then made available to the public for a 30-day public comment period on the BLM web page and ENBB. After analyzing and incorporating all comments received during the public comment period, changes to the document and/or lease list parcels are made as necessary. The EA and unsigned FONSI are posted again when the Notice of Competitive Lease Sale (NCLS), a list of available lease parcels and stipulations is issued. The NCLS initiates the protest period (30 days) on the parcel list. The protest period ends 60 days before the scheduled lease sale. Lease stipulations and notices applicable to each parcel are specified in the sale notice.

It is unknown when, where, or if future well sites or roads might be proposed on any leased parcel. Although no site-specific activities are specified, analysis of projected surface disturbance impacts, should a lease be developed, was estimated based on the RFD in the PFO Record of Decision and Approved Resource Management Plan and its associated Final Environmental Impact Statement. This EA would be used to determine the necessary administrative actions, stipulations, lease notices, special conditions, or restrictions that would be made a part of an actual lease at the time of issuance. If leases are offered, purchased, and issued, typical subsequent developments may include the construction of drill pads, access roads, and other ancillary facilities. Detailed site-specific analysis of individual wells, roads, and facilities would occur when a lease holder submits an APD. Under all alternatives, continued interdisciplinary support and consideration would be required to ensure on-the-ground implementation of planning objectives, including the proper implementation of stipulations, lease notices, Best Management Practices (BMPs) and required consultation through the APD process.

Standard lease terms provide for reasonable measures to minimize adverse impacts to specific resource values, land uses, or users (Standard Lease Terms are contained in Form 3100-11, Offer to Lease and Lease for Oil and Gas, U.S. Department of the Interior, BLM, October 2008 or later edition). Although once the lease has been issued, subject to lease stipulations the lessee has the right to use as much of the leased land as necessary to explore for, drill for, extract, remove, and dispose of oil and gas deposits located under the leased lands, operations must be conducted in a manner that avoids unnecessary or undue degradation of the environment and minimizes adverse impacts to the land, air, water, cultural, biological, and visual elements of the environment, as well as other land uses or users. Compliance with valid, nondiscretionary statutes (laws) is included in the standard lease terms and would apply to all lands and operations that are part of all of the alternatives. Nondiscretionary actions include the BLM's requirements under federal environmental protection laws, such as the Clean Water Act (CWA), Clean Air Act (CAA), Endangered Species Act (ESA), National Historic Preservation Act (NHPA), and FLPMA, which are applicable to all actions on federal lands even though they may not be reflected in the oil and gas stipulations in the RMP(s) and would be applied to all potential leases regardless of their category. Also included in all leases are the two mandatory stipulations for the statutory protection of cultural resources (WO IM-2005-03, Cultural Resources and Tribal Consultation for Fluid Minerals Leasing) and threatened, endangered and special status species (WO IM-2002-174, Endangered Species

Act Section 7 Consultation). BLM would also encourage industry to consider participating in EPA's Natural Gas STAR program under all alternatives. The program is a flexible, voluntary partnership between EPA and the oil and natural gas industry wherein EPA works with companies that produce, process, transmit and distribute natural gas to identify and promote the implementation of cost-effective technologies and practices to reduce emissions of methane, a greenhouse gas.

For purposes of the effects analysis, the RFD and the primary construction, operations, and abandonment elements described below would be similar for the Proposed Action and No Action alternatives.

#### **4.2.1 Reasonably Foreseeable Development**

The RFD scenario serves as an analytical baseline for identifying and quantifying direct, indirect, and cumulative effects of oil and gas activity and forms the foundation for the analysis of the effects of oil and gas management decisions in planning and environmental documents. The PFO Proposed Resource Management Plan and Final Environmental Impact Statement (RMP EIS) Appendix M describes in detail fluid mineral RFD scenarios for PFO area. In those analyses it was estimated based on the occurrence potential and past exploration and development activities that the BLM believes that future exploration and development are most likely to occur on the Wasatch (Emery/Book Cliffs CBNG Plays) which primarily run along highways 6 and 10; and the Tavaputs Plateau in the far northeast area of the field office.

The PFO Proposed RMP/Final EIS Appendix M states that the initial surface disturbance impacts from oil and gas activity for the Proposed RMP are 15,210 acres over 20 years. The long-term surface disturbance impacts from oil and gas activity for the Proposed RMP are 5,620 acres over 20 years. Impacts from past and present activity are estimated at 3,200 acres (after reclamation), and when added to projected future activity, the estimate is about 18,500 acres in total disturbance. Future initial impacts will be reduced from 7.9 to 2.8 acres per well pad through reclamation, resulting in a net total disturbance of approximately 8,800 acres. Application of BMPs and revised mitigation resulting from improved technologies and adaptive management processes are expected to further reduce impacts in the future.

For analysis purposes, this EA assumes that one well and associated facilities could be developed on each lease.

#### **4.2.2 Well Pad and Road Construction**

Equipment for well pad construction would consist of dozers, scrapers, and graders. Topsoil from each well pad would be stripped to depth and stockpiled for future reclamation. The topsoil would be seeded with native species of plants and left in place for the life of the well, then used during the final reclamation process. Disturbance for each well pad would be estimated at an area of approximately 175 feet by 250 feet (one acre), including topsoil piles. For this analysis, it was assumed that disturbance for well pads could be as high as six acres per well to account for any access roads and well pad construction. Disturbed land would be seeded with a mixture and rate as recommended or required by the BLM.

Depending on the locations of the proposed wells, it is anticipated that some new or upgraded access roads would be required to access well pads and maintain production facilities. Construction of new roads or upgrades to existing roads would require a 30-foot wide right of way (ROW) and would be constructed

of native material. It is not possible to determine the distance of road that would be required because the location of the wells would not be known until the APD stage. However, for purposes of analyses it is assumed that disturbance from access roads would be similar to development in other areas (five acres of disturbance).

All operations would be conducted following the “Gold Book” Surface Operating Standards for Oil and Gas Exploration and Development (BLM 2002b). The Gold Book was developed to assist operators by providing information on the requirements for conducting environmentally responsible oil and gas operations on federal lands. The Gold Book provides operators with a combination of guidance and standards for ensuring compliance with agency policies and operating requirements, such as those found at 43 CFR 3000 and 36 CFR 228 Subpart E; Onshore Oil and Gas Orders (Onshore Orders); and Notices to Lessees. Included in the Gold Book are environmental BMPs; these measures are designed to provide for safe and efficient operations while minimizing undesirable impacts to the environment.

Proper planning and consultation, along with the proactive incorporation of these BMPs into the APD Surface Use Plan of Operations (SUPO) by the operator, will typically result in a more efficient APD and environmental review process, increased operating efficiency, reduced long-term operating costs, reduced final reclamation needs, and less impact to the environment.

#### **4.2.3 Produced Water Handling**

Water is often associated with either produced oil or natural gas. Water is separated out of the production stream and can be temporarily stored in the reserve pit for 90 days. Permanent disposal options include surface discharge pits or underground injection. Handling of produced water is addressed in Onshore Oil and Gas Order No. 7, which prescribes measures required for the protection of surface and ground water sources.

#### **4.2.4 Plugging and Abandonment**

If the wells do not produce economic quantities of oil or gas, the well would be plugged and abandoned. The wells would be plugged and abandoned following specifications from a BLM Petroleum Engineer, which would include requiring cement plugs at strategic positions in the well bores. All fluids in the reserve pit would be allowed to dry prior to reclamation work. After fluids have evaporated from the reserve pit, sub-soil would be backfilled and compacted within 90 days. If the fluids within the reserve pit have not evaporated within 90 days, the fluid would be pumped from the pit and disposed of in accordance with applicable regulations. The well pad would be recontoured, and topsoil would be replaced, scarified, and seeded within 180 days of the plugging the well. All reclamation efforts would be coordinated closely with the project lead in the PFO. Reclamation would meet the objectives described in the Green River District Reclamation Guidelines (IM UTG000-2011-003).

### **4.3 Direct and Indirect Impacts**

#### **4.3.1 Alternative A – Proposed Action**

This section analyzes the impacts of the proposed action to those potentially impacting resources described in the affected environment Chapter 3, above.



#### 4.3.1.1 Air Quality

The act of leasing would not result in changes to air quality. However, should the leases be issued, development of those leases could impact air quality conditions. It is not possible to accurately estimate potential air quality impacts by computer modeling from the project due to the variation in emission control technologies as well as construction, drilling, and production technologies applicable to oil versus gas production and utilized by various operators, so this discussion will remain qualitative. Prior to authorizing specific proposed projects on the subject lease parcels quantitative computer modeling using project specific emission factors and planned development parameters (including specific emission source locations) will need to be conducted to adequately analyze direct and indirect potential air quality impacts. Air quality dispersion modeling which may be required includes impact analysis for demonstrating compliance with the NAAQS, plus analysis of impacts to Air Quality Related Values (i.e. deposition, visibility), particularly as they might affect nearby Class 1 areas (National parks and Wilderness areas).

The Proposed Action is considered to be a minor source under the Clean Air Act. Minor sources are not controlled by regulatory agencies responsible for implementing the Clean Air Act. In addition, control technology is not required by regulatory agencies at this point, since the Uinta Basin is considered to be in attainment of the NAAQS. The Proposed Action would result in different emission sources associated with two project phases: well development and well production. Annual estimated emissions from the Proposed Action are summarized in Table 3.

Well development includes emissions from earth-moving equipment, vehicle traffic, drilling, and completion activities. NO<sub>x</sub>, SO<sub>2</sub>, and CO would be emitted from vehicle tailpipes. Fugitive dust concentrations would increase with additional vehicle traffic on unpaved roads and from wind erosion in areas of soil disturbance. Drill rig and fracturing engine operations would result mainly in NO<sub>x</sub> and CO emissions, with lesser amounts of SO<sub>2</sub>. These temporary emissions would be short-term during the drilling and completion times.

During well production there are continuous emissions from separators, condensate storage tanks, and daily tailpipe and fugitive dust emissions from operations traffic. During the operational phase of the Proposed Action, NO<sub>x</sub>, CO, VOC, and HAP emissions would result from the long-term operation of condensate storage tank vents, and well pad separators. Additionally, road dust (PM<sub>10</sub> and PM<sub>2.5</sub>) would be produced by vehicles servicing the wells.

#### **Emissions Inventory (2011) (Measured in Tons per Year (TPY)).**

Pollutant	Carbon	Emery
PM <sub>10</sub>	1010.979	1792.626
PM <sub>2.5</sub>	618.487	678.873
SO <sub>x</sub>	8370.740	7243.353
NO <sub>x</sub>	6132.159	21511.124
VOC	16847.970	32123.164
CO	8293.984	21686.845

Although not listed as a NAAQS criteria pollutant, volatile organic compounds (VOC) are also considered in this EA as they, along with NO<sub>x</sub>, are precursors to the formation of ozone and are listed by UDAQ as a pollutant that, if the threshold is exceeded, would require an approval order

Emissions of NO<sub>x</sub> and VOC, ozone precursors, are 16.4 tons/yr for NO<sub>x</sub>, and 9.0 tons/year of VOC (Table 3). Project emissions of ozone precursors would be dispersed and/ or diluted to the extent where any local ozone impacts from the Proposed Action would be indistinguishable from background conditions. The primary sources of HAPs are from oil storage tanks and smaller amounts from other production equipment. Small amounts of HAPs are emitted by construction equipment. However, these emissions are estimated to be less than 1 ton per year. Based on the negligible amount of project-specific emissions, the Proposed Action is not likely to violate, or otherwise contribute to any violation of any applicable air quality standard, and may only contribute a small amount to any projected future potential exceedance of any applicable air quality standards.

#### Emissions Inventory for Parcels Outside of West Tavaputs Plateau (WTP) Project Area:

Due to the very small level of anticipated development (1 well per year), an emission inventory (EI) has not been conducted for the parcels that occur outside of the WTP project area. A typical oil and gas well EI is estimated for the purpose of this analysis and is based on the following analysis assumptions:

- Each oil and gas well would cause 6 acres of surface disturbance. This acreage is divided into 5 acres for road and pipeline construction and 1 acre for well pad construction.
- Construction activity for each well is assumed to be 10 days. It is further assumed that, based on the acreage disturbed, 4.5 days would be spent in well pad construction and 5.5 days would be spent in road and pipeline construction.
- Control efficiency of 25% for dust suppression would be achieved as a result of compliance with Utah Air Quality regulation R307-205.
- Post construction particulate matter (dust) emissions are likely to occur on a short term basis due to loss of vegetation within the construction and staging areas. Assuming appropriate interim reclamation, these emissions are likely to be minimal to negligible and will not be considered in this EA.
- Drilling operations would require 14 days.
- Completions and testing operations would require 3 days.
- Off road mobile exhaust emissions from heavy equipment during construction activities and on road mobile emissions will not be considered as they are dispersed, sporadic, temporary, and not likely to cause or contribute to exceedance of the National Ambient Air Quality Standards.
- The estimated EI for the typical well includes particulate matter of less than 10 micrometers in diameter (PM<sub>10</sub>), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and volatile organic compounds

(VOC). Emissions of sulfur dioxide (SO<sub>2</sub>) and lead (Pb) from oil and gas development activities are insignificant and are not included.

Lease stipulation UT-S-01 Air Quality, which regulates the amounts of NOX emission per horse-power hour based on internal combustion engine size, would be attached to all parcels.

- New and replacement internal combustion gas field engines of less than or equal to 300 design-rated horse power must not emit more than 2 grams of NOx per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower-hour.
- All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 grams of NOx per horsepower-hour.

Additional air impact mitigation strategies have recently been developed in the Uinta Basin. The BLM in coordination with the EPA and the UDAQ, among others, developed the following air quality mitigation measures. Integration of and adherence to these measures may help minimize adverse local or regional air quality impacts from activities carried out during oil and gas development (including but not limited to construction, drilling, and production). As per the WTP ROD and the GNB DEIS, as supplemented, the following avoidance and minimization measures should be considered in the Plan of Development (UT-LN-96):

- Electric compression, where feasible.
- Emission controls having a control efficiency of 95 percent on existing condensate tanks with a potential to emit of greater 20 tpy, and on new condensate tanks with a potential to emit of 5 tpy VOCs.
- Green completions for all well completion activities.
- Tier II drill rig engines by 2012, with phase-in of Tier IV engines or equivalent emission reduction technology as soon as possible thereafter, but no later than 2018.
- Lean burn natural gas-fired stationary compressor engines or equipment with equivalent emission rates.
- Catalyst on all natural gas-fired compressor engines to reduce the emissions of CO and VOCs.
- Dry seals on new centrifugal compressors.
- An annual inspection and maintenance program to reduce VOC emissions, including:
  - Performing inspections of thief hatch seals and Enardo pressure relief valves to ensure proper operations.
  - Reviewing gathering system pressures to evaluate any areas where gathering pressure may be reduced, resulting in lower flash losses from the condensate storage tanks.

- Vent emissions from stock tanks and natural gas TEG dehydrators would be controlled by routing the emissions to a flare or similar control device which would reduce emissions by 95% or greater.
  - Low bleed pneumatics would be installed on separator dump valves and other controllers. The use of low bleed pneumatics would result in a lower emission of VOCs.
  - During completion, flaring would be limited as much as possible. Production equipment and gathering lines would be installed as soon as possible.
  - Well site telemetry would be utilized as feasible for production operations.
- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 grams of NO<sub>x</sub> per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
  - All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gram of NO<sub>x</sub> per horsepower-hour.

Additional site-specific measures may also be employed to avoid or minimize effects to local or regional air quality. These additional measures would be developed and implemented in coordination with the EPA, the UDAQ, and other agencies with expertise or jurisdiction as appropriate (UT-LN-97).

Regional ozone formation controls (UT-LN-99) and additional air quality analysis (UT-LN-102) notices would also be applied to each parcel.

Application of these lease notices to each of the parcels would be adequate for the leasing stage to disclose potential future restrictions and to facilitate the reduction of potential impacts upon receipt of a site specific APD.

#### **4.3.1.2 Hydrology**

##### **Hydrologic Conditions**

The associated surface disturbance from oil and gas development on the proposed leases would have the potential to interrupt surface flow patterns which could create new channeling of surface runoff from storms and spring snow melt. The construction of well pads, roads and pipelines could interrupt surface runoff and create paths for concentrated surface flow. Impacts to hydrologic conditions could increase sediment loading and associated dissolved solids into streams. Application of Stipulations UT-S-126, UT-S-127, and UT-S-156 is warranted.

Drill pads would have the potential to interrupt surface flow patterns which could create new channeling of surface runoff from storms and spring snow melt. Flow patterns moving onto the pads and around them would have reduced vegetation to slow flows and filter sediments. Berm placement around the well pads and proper placement of the drill pads would mitigate these impacts.

The installation of service roads to well pads would create possibility of concentrated flows along those roadways. Crowning and ditching is required on all roads to mitigate this impact.

### Water Quality

Maintenance and refueling of equipment could impact water quality from spills and releases. However, standard protocols would minimize possibility of spills and releases.

Eroded materials could impact streams through runoff creating increased sediment impacting surface water quality. Crowning and ditching of roads would reduce this impact to negligible.

There is a potential for impacts to groundwater levels and groundwater quality, but the standard practice of casing and cementing through the groundwater zones would mitigate impacts. In addition, a BLM petroleum engineer and geologist will review each APD's casing and cementing program to ensure all of BLM's requirements for resource protection, including groundwater protection are met.

Construction of facilities could impact springs and streams through increased runoff and soil erosion, reducing water quality. No surface disturbance or occupancy would be maintained within 660 feet of any natural springs to protect the water quality of the spring. No new disturbance will be allowed in areas equal to the 100-year floodplain or 100 meters on either side of the center line of any stream, stream reach, or riparian area, whichever distance is greater. Lease Stipulations UT-S-126 and UT-S-127 are attached to all affected parcels (Natural Springs, and Floodplains, Riparian Areas, Springs and Public Water Reserves).

Drill pads and road construction during winter months could create increased soil erosion in elevations above 7,000 feet. Lease Stipulation UT-S-156 is applied to parcels 6514 and 6578 (High Country Watershed).

### Soils

Well pads on slopes steep slopes. These require care in placement and maintenance. All soils with high erosion potential need care to prevent accelerated erosion that could be transported to streams that are already listed on the 303d list. This will be accomplished by careful placement of drill pads and access routes. Regular maintenance on roads and pads in highly erosive soils will be required. Stipulations UT-S-97 and UT-S-101 are attached to all parcels.

Construction of well pads on steep slopes would create increased erosion. No Surface occupancy is applied on slopes greater than 40%. In surface disturbing proposals regarding construction on slopes of 20 percent to 40 percent, proponent would include an approved erosion control strategy and topsoil segregation/restoration plan. Such construction must be properly surveyed and designed by a certified engineer and approved by the BLM prior to project implementation, construction, or maintenance. Other standard operating procedures, best management practices and site specific mitigation applied at the APD stage including reclamation, as conditions of approval will address soil resource issues not already analyzed in the PFO Proposed RMP/Final EIS. Lease Stipulations UT-S-97 all parcels except 6470, 6471, 6536, 6540, 6541, 6542, 6543, 6550 and UT-S-101 are applied to all parcels except 6470, 6471, 6536, 6540, 6541, 6542, 6543, 6550 (NSO for slopes greater than 40%, and CSU on slopes 20 – 40%).

Many parcels include soils that have moderate to high erosion potential. Surface disturbance in these soils could create increased soil erosion. Care in placement of drill pads and access routes is required. On steep slopes, stipulations UT-S-97 and UT-S-101 would minimize erosion of soil. BLM would not allow construction on slopes that could not be properly mitigated.

#### *4.3.1.3 Threatened, Endangered, Candidate or Sensitive Plant Species*

Surface disturbance associated with drill pads, roads and other associated activities could impact habitat.

The issuance of leases would not directly impact threatened, endangered, candidate or sensitive plant species on the parcels. However, as the BLM generally cannot deny all surface use of a lease unless the lease is issued as a No Surface Occupancy stipulation, the issuance of leases does convey an expectation that drilling and development would occur. Chapter 3 identifies species that could be impacted through future actions on leased parcels. Beyond the potential loss or damage to individuals these impacts include direct dispersed and indirect impacts including: the loss of suitable habitat for the species and its pollinators; increased competition for space, light, and nutrients with invasive and noxious weed species introduced and spread due to surface disturbing activities; accidental spray or drift of herbicides used during invasive plant control; altered photosynthesis, respiration, and transpiration due to increased fugitive dust resulting from the surface disturbance and project related traffic.

Application of the appropriate species-specific lease notices and T&E-05, 14, 15, 17 (Listed Plant Species) to each of the identified parcels on federal surface would be adequate for the leasing stage to disclose potential restrictions against future authorizations. The mandatory ESA stipulation attached to each parcel (listed above) would also protect special status plant species. Impacts to the identified species and their respective habitats resulting from future authorizations connected to the proposed leases cannot be analyzed until an exploration or development application is received, individual species surveys are completed, and necessary avoidance and mitigation incorporated into the plan of development or applied to the application as a condition of approval.

#### *4.3.1.4 Non-WSA Lands with Wilderness Characteristics*

Potential impacts of leasing and future development activities on 48 of the parcels would result in direct and indirect impacts to the wilderness characteristics including: loss of size, loss of naturalness, loss of outstanding opportunities for solitude, and loss of outstanding opportunities for primitive and unconfined recreation.

WIA Name	Total WIA Acres	WIA Acres overlaying parcels	Number of Parcels
Price River	90,000	37,915	27
Eagle Canyon	39,000	16,804	10
Lost Springs Wash	37,000	13,299	11
Desolation Canyon	188,020	1,513	3
Molen Reef	33,396	291	1
Mexican Mountain	36,700	174	1

Where development would occur within parcel is currently unknown; also whether development would be proposed within the area of the parcel overlapping the WIA is currently unknown. If fluid mineral resources were developed, it is anticipated that at a minimum approximately six acres would be disturbed within the parcel as the result of the placement of a single well pad and access road. Regardless of the number of wells that may be established on the parcel, it is expected that the wilderness characteristic of naturalness will be directly lost at the pad and along the access road. Acreage within the unit that is not directly affected by drilling activity and road construction will retain its natural character. This is because topography and vegetative screening can disrupt the visual and auditory impacts from drilling activity. Other indirect impacts to the wilderness characteristic of outstanding opportunity for solitude will occur within the immediate vicinity of the drilling activity (visual and auditory impacts) and would extend beyond the areas of direct disturbance.

#### **4.3.1.5 Old Spanish National Historic Trail (OST)**

Potential impacts of leasing and future development activities on parcels 6401, 6612, 6614, 6653, 6654, 6655, 6656, 6659, 6660, 6658, 6661, would result in direct and indirect impacts to OST including the loss of the historic character of the trail.

Where development would occur within the parcels is currently unknown; also whether development would be proposed within the area of the parcel overlapping the OST is currently unknown. If development of fluid mineral resources were proposed it is considerable that at a minimum approximately six acres would be disturbed within the parcel as the result of the placement of a single well pad and access road. Establishing the NSO boundaries for the OST will retain the historical character of the trail (as required in the PFO ROD/RMP, Appendix R-3, p. 4). This is because topography and vegetative screening can disrupt the visual and auditory impacts from drilling activity. Other indirect impacts to the trail corridor will occur within the immediate vicinity of the drilling activity (visual and auditory impacts) and would extend beyond the areas of direct disturbance.

Old Spanish Historical Trail Segment	Parcels
Big Flat to Walker Flat	6401
Lost Springs Wash to Trail Springs Wash	6612, 6653, 6654, 6655, 6656, 6659, 6660, 6661
Green River Crossing to Big Flat	6612, 6614, 6658, 6661

#### **4.3.1.6 Areas of Critical Environmental Concern (ACECs)**

Resource values contained within the ACECs would be directly and indirectly affected by the proposed oil and gas leasing because leasing sets the stage for future surface-disturbing activities.

A No Surface Occupancy (NSO) stipulation can reduce and minimize potential impacts to cultural biological and scenic values within the ACECs but there would be residual effects from dust and other construction activities

Potential impacts from the oil and gas lease sale and future development to ACEC's would be found in parcels 6401, 6402, 6404, and 6440 which contain portions of Short Creek - Rock Art ACEC. Parcel 6434 which contains a portion of Molen Seep - Rock Art ACEC. Parcels 6435, 6436, 6438, 6439, 6440 which contain portions of North Salt Wash - Rock Art ACEC, and Parcel 6612 contains portions of the

Big Hole-Rock Art ACEC. These impacts will vary within the parcels due to the unknown area containing mineable products and whether development of any found mineable products would take place in these parcels.

Impacts to resource is unknown at this stage of oil and gas leasing because leasing in itself does not require site-specific, surface-disturbing operations. If the subject lands are leased, a location-specific exploration or development plans will be required.

Future oil and gas exploration operations will be addressed and analyzed in a site-specific NEPA document which will mitigate impacts to identified resources resulting from a location-specific and defined operational plan.

#### *4.3.1.7 Recreation*

Recreation values contained would be directly and indirectly affected by the proposed oil and gas leasing because leasing sets the stage for future surface-disturbing activities associated with exploration and development of the hydrocarbon resources.

Changes to recreation due to oil and gas development could potentially negatively affect the recreation experience for many user groups while it would increase access and availability to others.

Potential impacts of leasing and future development activities on parcels 6401, 6402, 6404, 6432, 6433, 6434, 6435, 6436, 6437, 6438, 6439, 6440, 6512, 6513, 6514 and 6614 are located in the San Rafael Swell SRMA which is set up for the undeveloped recreation-Tourism with portions that are Destination areas associated with OHV use. Price RMP Table R9-5.

The Never Sweat and Lost Springs Wash area contain a large trail system known as the Summerville/Chimney Rock/Humbug OHV trail system (61,000 acres). Current trends show that OHV use is increasing and will continue to do so. Therefore, in order to continue to provide for this recreational opportunity BLM made the decision to provide for OHV recreational use. The trail systems in this area are unique with travel being limited to OHV, motorcycles, mountain bikes and some jeep roads. Future development will likely use the existing disturbances and designated routes found in the area to minimize disturbances to the land. If development was to take place in this area it would change the experiences the recreationalists have on these routes.

Where development would occur within parcels is currently unknown; also whether development would be proposed within the area of the parcel overlapping the SRMA is currently unknown. Development of fluid mineral resources would likely affect at a minimum approximately six acres that would be disturbed within the parcel as the result of the placement of a single well pad and access road. Regardless of the number of wells that may be established on the parcel, it is expected that the visitors experience on the trails and routes will be negatively affected and reduced recreation opportunities at the pad and along the access roads.



#### **4.3.1.8 Visual Resource Management**

BLM defines scenic quality as the measure of the visual appeal of the landscape. The BLM's VRI process is based on the assumption that while all lands have some level of scenic value, the areas with the greatest variety and most harmonious composition have the greatest scenic value. Although scenic quality is evaluated in relation to the natural landscape, this does not mean that human-made features necessarily detract from the scenic value of the landscape. In fact, human-made features may actually enhance the scenic value.

Direct impacts associated with VRM would be the change to the scenic quality of the various parcel areas throughout the field office due to possible exploration and development from the lease sale. Location of future exploration and development within the parcels is currently unknown. Any future exploration and development within the parcels would be a change to the scenic quality of that area and further NEPA analysis would need to be analyzed in a site specific NEPA document.

The view shed located throughout the Lost Springs Wash area and Cottonwood Wash area will be protected by the NSO from the twenty-foot view shed level. This area is where the Old Spanish Trail is located for its historic and national trail recognition.

Map 12 found in Appendix B shows the area for protection along the Old Spanish Trail view shed. Areas particularly needing protection are found within the Lost Springs Wash and Cottonwood Wash area.

#### **4.3.2 Alternative B – No Action**

This alternative (not to offer any of the nominated parcels for sale) would not meet the need for the proposed action. The sale of oil and gas leases is needed to meet the growing energy needs of the United States. Furthermore, it is a stated goal of the PFO ROD/RMP to provide opportunities for mineral exploration and development under the mining and mineral leasing laws subject to legal requirements to protect other resource values. Excluding the Lost Springs Wash to Trail Springs Wash segment the PFO ROD/RMP categorizes the areas incorporated by the nominated parcels as open to leasing with the application of standard leasing stipulations and notices.

##### **4.3.2.1 Air Quality**

The No Action alternative would not result in potential impacts because the parcels would not be leased or developed.

##### **4.3.2.2 Hydrology**

The No Action alternative would prevent future potential impacts relating to lease operations. Although drilling and production activities on federal land surfaces are restricted to leased parcels, oil and gas exploration may also be authorized on non-leased public lands, on a case-by-case basis, pursuant to 43 CFR 3150.0-1. Accordingly, this alternative would not prevent direct, indirect or cumulative environmental impacts relating to oil and gas exploration activities through denial of the proposed action.

Additionally, this alternative would not prevent indirect impacts relating to rights of way authorizations to support oil and gas operations on adjacent leased parcels.

#### **4.3.2.3      *Threatened, Endangered or Candidate Plant Species***

The No Action alternative would prevent future potential impacts relating to lease operations. Although drilling and production activities on federal land surfaces are restricted to leased parcels, oil and gas exploration may also be authorized on unleased public lands, on a case-by-case basis, pursuant to 43 CFR 3150.0-1. Accordingly, this alternative would not prevent direct, indirect or cumulative environmental impacts relating to oil and gas exploration activities through denial of the proposed action. Additionally, this alternative would not prevent indirect impacts relating to rights of way authorizations to support oil and gas operations on adjacent leased parcels.

#### **4.3.2.4      *Non-WSA Lands with Wilderness Characteristics***

The No Action Alternative would prevent future potential impacts relating to lease operations within the Non-WSA lands with wilderness characteristics. Impacts to Non-WSA lands with wilderness characteristics would continue at present levels from existing oil and gas development.

#### **4.3.2.5      *Old Spanish National Historic Trail (OST)***

The No Action alternative would not result in potential impacts to the Old Spanish National Historic Trail because the parcels would not be leased or developed.

#### **4.3.2.6      *Areas of Critical Environmental Concern (ACECs)***

The No Action alternative would not result in any impacts because the parcels would not be leased.

#### **4.3.2.7      *Recreation***

The No Action alternative would not result in any impacts because the parcels would not be leased.

#### **4.3.2.8      *Visual Resource Management***

The No Action alternative would not result in any impacts because the parcels would not be leased.

### **4.3.3      *Cumulative Impacts Analysis***

#### **4.3.3.1      *Air Quality***

The Cumulative Impact Analysis Area (CIAA) for air quality is the Uinta Basin. Cumulative air quality impacts are defined as the combination of emissions resulting from the Proposed Action, existing nearby permitted sources, and Reasonably Foreseeable Development (RFD) within the region. Cumulative impacts are incorporated by reference to the Greater Natural Buttes air quality study, and the Gasco air quality study. The increase in emissions associated with the Proposed Action would be localized, in some cases temporary (well development phase), and on a much smaller scale in comparison with regional emissions. For regional ozone issues, when the emissions inventory for the Proposed Action is compared to the regional emission inventory compiled during the WRAP Phase III study for the Uinta Basin, 2006

Baseline Emissions, (WRAP, 2009), it can be seen from the table below that the VOC and NO<sub>x</sub> emissions from the Proposed Action comprise a small percentage of the WRAP baseline emissions.

### **Proposed Action versus 2012 WRAP Phase III Emissions Inventory Comparison**

Emission	Proposed <sup>a</sup> Action Production Emissions (ton/yr)	WRAP Phase III 2012 Uintah Basin Emission Inventory <sup>b</sup> (ton/yr)	Percentage of Proposed Action to WRAP Phase III
NO <sub>x</sub>	16.4	16,547	0.099
VOC	9.0	127,495	0.007

<sup>a</sup> see Table 4-2

<sup>b</sup> [http://www.wrapair.org/forums/ogwg/PhaseIII\\_Inventory.html](http://www.wrapair.org/forums/ogwg/PhaseIII_Inventory.html) Uintah Basin Data

The WRAP Phase III baseline inventory for the Uinta Basin for VOC emissions in 2006 was 71,546 tons/yr. For 2012, the NO<sub>x</sub> and VOC emissions are projected at 16,547 and 127,495 ton/yr, respectively. Potential VOC emissions from the Proposed Action represent 0.007% of the total 2012 VOC estimated emissions for the region, and potential NO<sub>x</sub> emissions from the Proposed Action represent 0.099% of the total 2012 VOC estimated emissions for the region.

Based on the magnitude of the projected increase in VOC emissions for the Uinta Basin from 2006 to 2012, and the inconsequential contribution that would be emitted from the Proposed Action, an accurate analysis of potential ozone impacts from the Proposed Action is not feasible. Any cumulative ozone impacts from the Proposed Action would be indistinguishable from, and dwarfed by, the margin of uncertainty associated with the regional cumulative VOC and NO<sub>x</sub> emission inventory. Thus the potential cumulative ozone impact from the Proposed Action cannot be modeled with any accuracy due to the level of the emissions from the Proposed Action, the size of the project, and the lack of model sensitivity. When compared to regional emissions inventories, the amounts of ozone precursors emitted from the Proposed Action are not expected to have a measurable contribution or effect on regional ozone formation. The No Action alternative would not result in an accumulation of impacts.

The assessment of GHG emissions and climate change is still in its earliest stages of formulation. At present, under current scientific data and models, it is not technically feasible to know with any certainty the net impacts to climate due to global emissions, let alone regional or local emissions. The inconsistency in results of scientific models used to predict climate change at the global scale, combined with the lack of scientific models designed to predict climate change on regional or local levels, prohibits the ability to quantify potential future impacts of decisions made at the local level, particularly for small scale projects such as the Proposed Action. However, drilling and development activities from the Proposed Action are anticipated to release a negligible amount of emissions, including GHGs, into the local airshed. The No Action alternative would not result in an accumulation of impacts.

#### 4.3.3.2 *Hydrology*

The associated surface disturbance should oil and gas development occur on the proposed leases would have the potential to interrupt surface flow patterns which could create new channeling of surface runoff from storms and spring snow melt. Should facilities be development close to or crossing waterways on the proposed parcels, the likelihood of project impacts would increase. These impacts could include increased sedimentation; increased salt loading; contamination by petroleum products, chemicals, or produced waters; and flow alterations. Impacts to hydrologic conditions could increase sediment loading and associated dissolved solids into streams. Impacts can be reduced or avoided through proper project design, construction, maintenance activities, and implementation of best management practices.

Specific locations, development techniques, and mitigation procedures are not included in the proposed action; therefore, specific descriptions of potential effects are unattainable at this time. Authorization of proposed projects would require full compliance with BLM directives and stipulations that relate to hydrologic conditions.

#### 4.3.3.3 *Threatened, Endangered, Candidate or Sensitive Plant Species*

The CIA for Threatened, Endangered or Candidate Plant Species includes the PFO planning area. However, as suitable and occupied habitats have not been completely mapped and population estimates are largely unknown, accurate disturbance estimates for the CIA cannot be precisely quantified.

Cumulative impacts to Threatened, Endangered or Candidate Plant Species is directly associated with their ongoing habitat losses, sensitivity to disturbance, and declining population numbers, these species would be more sensitive than other, more common species to impacts related to development within the CIA. Past, present, and reasonably foreseeable surface-disturbing land uses have reduced, and will likely continue to reduce, the quality and quantity of suitable and occupied habitats in the CIA for Threatened, Endangered or Candidate Plant Species.

Based on direct and indirect cumulative impacts, ongoing and future oil and gas development and other land uses such as OHV travel, forage utilization by livestock and wildlife, and noxious weed encroachment and management in the CIA could cumulatively and incrementally reduce and fragment habitats for Threatened, Endangered or Candidate Plant Species.

#### 4.3.3.4 *Non-WSA Lands with Wilderness Characteristics*

Cumulative impacts to lands with wilderness characteristics were considered in detail within the PFO RMP/ROD. Cumulative impacts resulting from other past, present and reasonably foreseeable actions, including oil and gas development include loss of size, loss of naturalness, loss of outstanding opportunities for solitude, and loss of outstanding opportunities for primitive and unconfined recreation. During the PFO land use planning process, the Price River Unit, Eagle Canyon Unit, Lost Spring Wash Unit, Molen Reef Unit, Mexican Mountain Unit and the Desolation Canyon Unit non-WSA lands were considered and thoroughly analyzed for the protection, preservation, and maintenance of those wilderness characteristics as well as for the impacts that could occur if other resource developments and uses were allowed. The Approved Resource Management Plan, October 2008, Record of Decision, determined that the non-WSA lands with wilderness characteristics would not be managed for those characteristics

because those lands were found to have resource uses that would conflict with protection, preservation, or maintenance of the wilderness characteristics (BLM, 2008b). Price River, Eagle Canyon, Lost Springs Wash, Mexican Mountain, Molen Reef and Desolation Canyon Units fall within that determination.

#### *4.3.3.5 Old Spanish Trail*

During the PFO land use planning process, trail segments were analyzed for the protection, preservation, and maintenance of those historical characteristics as well as for the impacts that could occur if other resource developments and uses were allowed. The Approved Resource Management Plan, October 2008, Record of Decision, determined that historical characteristics of the trail would be preserved. With the NSO stipulation for the Trail Springs/Lost Springs Wash segment and the other CSU stipulations in the land use plan, there should be no cumulative impacts to the Old Spanish Trail.

#### *4.3.3.6 Areas of Critical Environmental Concern (ACECs)*

Cumulative impacts to ACECs located in the proposed lease areas could have negative impacts to the rock art ACECs. The impacts range from increased visitor use due to development of roads and trails, to damages that may come from dust and human destruction. As roads get constructed for oil and gas leases the development of the roads for exploration and possible mineral extraction increases access that historically was not provided for in the area.

#### *4.3.3.7 Recreation*

Cumulative impacts from development of oil and gas in Emery and Carbon Counties have displaced the opportunity for recreational use in Emery and Carbon County. The significantly noticeable changes that have and are taking place such as, removal of OHV recreation use in Nine Mile Canyon and the Carbon county area by developing all the old Jeep trails, OHV routes and existing linear features into developed and annually maintained roads. This development has changed the various types of trail systems into a road system which has limited the recreation opportunities for those who are seeking various types of OHV use, mountain biking or back road hiking. We currently are being asked by Carbon and Emery County to build trails and provide areas for various types of recreation use that have been displaced due to development of oil and gas roads. The future development of oil and gas could change the settings in the Chimney Rock/ Lost Springs Wash OHV trail system, and negatively affect the trail systems currently in place.

#### *4.3.3.8 Visual Resource Management*

The PFO has a history of mining throughout the field offices which contain varying levels of disturbance. Although this disturbance was a past action, it still has repercussions we are managing today. Currently we have visible impact that can enhance or detract from the visuals located in the office, while some of these activities that took place decades ago are still visible today.

Cumulative impacts from the development of past present and future oil and gas sites located in the Price field office have changed, are changing and will change the view sheds in many areas. Careful consideration and placement of developed sites need to be managed to minimize the effects that will take place if development continues.

## 5 CONSULTATION AND COORDINATION

### 5.1 Introduction

The issue identification section of Chapter 1 identifies those issues analyzed in detail in Chapter 4. The Interdisciplinary Team Checklist provides the rationale for issues that were considered but not analyzed further. The issues were identified through the public and agency involvement process described in sections 5.2 and 5.3 below.

### 5.2 Persons, Groups, and Agencies Consulted

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
U.S. National Park Service	Consult with the NPS on the Old Spanish Trail.	Coordination is ongoing.
U.S. Fish & Wildlife Service	Information on Consultation, under Section 7 of the Endangered Species Act (16 USC 1531)	Coordination is ongoing.
Utah State Historic Preservation Office	Consultation for undertakings, as required by the National Historic Preservation Act (NHPA) (16 USC 470)	Coordination is ongoing.
Utah Division of Wildlife Resources	Coordination with UDWR as the agency with expertise on wildlife species.	Coordination is ongoing.
U.S. Forest Service	Consult as USFS as a leasing program partner.	Coordination is ongoing.
School and Institutional Trust Lands Administration	Coordinated with as leasing program partner.	Coordination is ongoing.
Public Lands Policy Coordination Office	Coordinated with as leasing program partner.	Coordination is ongoing.
Paiute Tribe of Utah (PITU), Ute Indian Tribe, Hopi Tribe, Zuni Tribe, Navaho Nation, Ute Mountain Tribe, Southern Ute Tribe, Northwestern Band of Shoshone Nation, Shoshone-Bannock Tribes, and Eastern Shoshone Tribe	Consultation as required by the American Indian Religious Freedom Act of 1978 (42 USC 1531) and NHPA (16 USC 1531)	The Hopi Tribe responded to BLM's consultation letter with the concern "that less than 10% of the parcels have been surveyed for cultural resources" and "recommend the BLM undertake a sample cultural survey of these 76 parcels to enable you to make an appropriate determination of effect pursuant to NHPA". In a letter dated 8-14-13 BLM replied that PFO made a reasonable and good faith effort to identify cultural resources within the nominated lease parcels... a review of existing data as described in BLM Manual 8110.21A1b. BLM-UT

		<p>State Office Archaeologist Jamie Palmer completed a Cultural Resources Records Review for this lease sale on April 30, 2013. In addition, the following stipulation (required by WO IM 2005-003) is attached to each lease parcel to provide protection for cultural resources: <i>“This lease may be found to contain historic properties and/ or resources protected under the National Historic Preservation Act (NHPA), American Indian Religious Freedom Act, Native American Graves and Protection Act, E.O. 13007, or other statutes and executive orders. The BLM will not approve any ground disturbing activities that may affect such properties or resources until it completes its obligations under applicable requirements of the NHPA and other authorities. The BLM may require modification to exploration or development proposals to protect properties, or disapprove any activity that is likely to result in adverse effects that cannot be successfully avoided, minimized or mitigated.”</i> It should also be noted that lease issuance alone does not, by itself, authorize any ground disturbing activities.</p>
Private Landowners	Coordination as outlined by WO IM 2010-117 and NEPA.	<p>Letters sent to private surface estate owners on 2/26/13. Several contacted the PFO expressing some concerns regarding the lease sale. Most were general inquiries into the sale process. Individuals were informed of the pending EA comment period and protest provisions of the NCLS.</p>

### 5.3 Summary of Public Participation

In order to meet the intent of the CEQ regulations that require an “early and open process for determining the scope of issues to be addressed and for identifying issues related to a Proposed Action” (40 CFR 1501.7) several actions were taken to involve the public.

BLM utilized and coordinate the NEPA public participation requirements to assist the agency in satisfying the public involvement requirements under Section 106 of the National Historic Preservation Act (NHPA) (16 U.S.C. 470(f) pursuant to 36 CFR 800.2(d)(3). The information about historic and cultural resources within the area potentially affected by the proposed project/action/approval will assist the BLM in identifying and evaluating impacts to such resources in the context of both NEPA and Section 106 of the NHPA. BLM consulted with Indian tribes on a government-to-government basis in accordance with Executive Order 13175 and other policies. Tribal concerns, including impacts on Indian trust assets and potential impacts to cultural resources, were given due consideration. Federal, State, and local agencies, along with tribes and other stakeholders that may be interested in or affected by the proposed project/action/approval were invited to participate in the scoping process.

On June 14, 2013, the public was notified of the proposed action by posting on the Utah BLM Environmental Notification Bulletin Board. The process used to involve the public also included a 30-day public review and comment period for the EA and unsigned FONSI from June 14, 2013 to July 15, 2013. In addition to the ENBB, the EA and unsigned FONSI were posted on the BLM Utah's Oil and Gas Lease Sale webpage.

All the information related to this EA is maintained on the identified websites (ENBB and Oil and Gas Leasing).

#### 5.3.1 Modifications Based on Public Comment and Internal Review

- *The following table replaces the original 303D List table:*

*Utah's 2010 303d List*

<i>Waterbody Name</i>	<i>Waterbody Description</i>	<i>Cause</i>
<i>Price River 3</i>	<i>Price River from Coal Creek confluence to Carbon Canal Diversion</i>	<i>Benthic-Macroinvertebrate Bioassessments</i>
<i>Upper San Rafael River</i>	<i>San Rafael River from Buckhorn Crossing to confluence of Huntington and Cottonwood Creeks</i>	<i>Benthic-Macroinvertebrate Bioassessments</i>
<i>Lower San Rafael River</i>	<i>San Rafael River from confluence with Green River to Buckhorn Crossing</i>	<i>Benthic-Macroinvertebrate Bioassessments</i>

- *The following change was made to the Water Quality section of chapter 4, third paragraph: "There is a potential for impacts to groundwater levels and groundwater quality, but the standard practice of casing and cementing through the groundwater zones would mitigate impacts. In addition, a BLM petroleum engineer and geologist will review each APD's casing and cementing program to ensure all of BLM's requirements for resource protection, including groundwater protection, are met."*



- *The EA has been modified to reflect the following: The project area does not include the Muddy/Dirty Devil Drainage. The San Rafael and Price River water quality is protected by mitigation measures as listed in Chapter 4 Section 4.3.1.2. These two streams drain into the Green River which in turn would be unaffected. 5.3.2*
- *The following parcels identified by the UDWR as containing crucial fawning habitat for pronghorn would have lease notice UT-LN-17 attached. ("The Lessee/operator is given notice that lands in this lease have been identified as containing crucial antelope fawning habitat. Exploration, drilling, and other development activities may be restricted from April 15 through June 15 to protect antelope fawning. Modifications may be required in the Surface Use Plan of Operations including seasonal timing restrictions to protect the species and its habitat.") 6472-161, 6494-183, 6495-184, 6496-185, 6499-188, 6500-189, 6501-190, 6502-191, 6503-192, 6504-193, 6505-194, 6506-195, 6507-196, 6508-197, 6509-198, 6510-199, 6511-200, 6512-201, 6513-202, 6514-203, 6534-225, 6540-231, 6541-232, 6542-233, 6543-234, 6544-235, 6545-236, 6546-237, 6546-237A, 6550-241, 6552-243, 6556-247, 6587-296, 6588-297, 6589-298.*

## 5.3.2 Response to Public Comment -- See Appendix E

## 5.4 List of Preparers

Name	Office	Title	Responsible for the Following Section(s) of this Document
Don Stephens / Anita Jones	PFO	Natural Resource Specialist / Physical Scientist	Project Leads
Leonard Herr / Colin Schwartz	USO	Air Quality Specialists	Air Quality
Jamie Palmer	USO	Archaeologist	Cultural Resources
Jeffrey Brower	PFO	Hydrologist	Hydrologic Conditions; Wetland/Riparian Zones
Dana Truman	PFO	Range Specialist	Threatened, Endangered or Candidate Plant Species
Jared Reese	PFO	Wildlife Biologist	Fish and Wildlife Excluding USFWS Listed Species and BLM Sensitive Species, e.g. Migratory Birds; BLM Sensitive Species; ESA Candidate Animal Species
Matt Blocker	PFO	Recreation Specialist	Non-WSA Lands with Wilderness Characteristics; Old Spanish Trail
Josh Winkler	PFO	Recreation Specialist	Recreation, Areas of Critical Environmental Concern (ACECs); Visual Resource Management
Mike Leschin	PFO	Paleontologist	Fossil Resources
Ahmed Mohsen	PFO	Associate Field Manager	NEPA Coordination
Tyler Nelson	PFO	GIS Specialist	GIS / Maps

## 6 REFERENCES, ACRONYMS AND APPENDICES

### 6.1 References Cited

Bureau of Land Management (BLM). 1991a. San Rafael Resource Area Final Resource Management Plan, May 24, 1991.

Bureau of Land Management (BLM), 1997. Final Environmental Impact Statement and Record of Decision, Price Coalbed Methane Project. May 1997.

Bureau of Land Management (BLM). 1999b. Final Environmental Impact Statement and Record of Decision, Ferron Natural Gas Development Project Carbon and Emery County, Utah. July 1999.

Bureau of Land Management (BLM). 2008. West Tavaputs Plateau Natural Gas Full Field Development Plan Draft Environmental Impact Statement. Price Field Office. February 2008.

BLM, 2008b. Price Field Office Record of Decision and Approved Resource Management Plan. October 2008

BLM. 2008c. Price Field Office Record of Decision and Approved Resource Management Plan. Biological Opinion – USFWS October 27, 2008.

IM UTG000-2011-003 Green River District Reclamation Guidelines, March 2011.

NatureServe. 2005. NatureServe Explorer: An online encyclopedia of life [web application]. Version 4.6. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. Accessed (August 2005–May 2006).

NRCS, 2001a. United States Department of Agriculture, Natural Resources Conservation Service, Soil Quality Institute, Grazing Lands Technology Institute. National Soil Survey Handbook. Title 430-VI. Internet: <http://www.statlab.iastate.edu/soils/nssh/>.

NRCS, 2001b. Soil Quality Institute, Grazing Lands Technology Institute, and National Soil Survey Center, Natural Resources Conservation Service, USDA: and the Bureau of Land Management, USDI, Internet: <http://www.soils.usda.gov/sqi/files/RSQIS9.pdf>.

Programmatic Agreement Between The U.S.D.I. Bureau Of Land Management, Utah, The Utah State Historic Preservation Officer, The Advisory Council On Historic Preservation, The State Of Utah School And Institutional Trust Lands Administration, Carbon And Duchesne Counties, And Bill Barrett Corporation Regarding The West Tavaputs Plateau Natural Gas Full Field Development Plan In Carbon And Duchesne Counties, Utah.2010

SCS, 1970. United States Department of Agriculture, Soil Conservation Service. Soil Survey of Carbon-Emery Area, Utah.

SCS, 1988. United States Department of Agriculture, Soil Conservation Service. Soil Survey of Carbon Area, Utah.

Stokes, W.L. 1986, Geology of Utah. `Utah Museum of Natural History, University of Utah, and Utah Geological and Mineral Survey. Department of Natural Resources, State of Utah.

Utah Division of Water Quality (UDWR). 2002. Utah's 202 303 (d) List of Waters. Utah Department of Environmental Quality, Division of Water Quality. April 2002.

U.S. Fish and Wildlife Service (USFWS). 2005. "Status Review Completed: Greater Sage-Grouse Not Warranted for Listing as Endangered or Threatened." News Release. January 7, 2005.

WO IM 2010-117 Oil and Gas Leasing Reform – Land Use Planning and Lease Parcel Reviews, May 2010.

WO IM 2012-043 Greater Sage-Grouse Interim Management Policies and Procedures, December 2011.

## 6.2 List of Acronyms

APD	Application for Permit to Drill
ACEC	Area of Critical Environmental Concern
BLM	Bureau of Land Management
BMP	Best Management Practices
CBNG	Coalbed Natural Gas
CFR	Code of Federal Regulations
CIAA	Cumulative Impact Analysis Area
CSU	Conditional Surface Use
DR	Decision Record
EA	Environmental Assessment
EIS	Environmental Impact Statement
ENBB	Environmental Notification Bulletin Board
EOI	Expression of Interest
ESA	Endangered Species Act
FLPMA	Federal Land Policy and Management Act of 1976
FONSI	Finding of No Significant Impact
GIS	Geographic Information System
IDPR	Interdisciplinary Parcel Review
IM	Instruction Memorandum
LUP	Land Use Plan
NAGPRA	Native American Graves Protection and Repatriation Act
NCLS	Notice of Competitive Lease Sale
NEPA	National Environmental Policy Act
NNL	National Natural Landmark
NHPA	National Historic Preservation Act

NPS	National Park Service
NSO	No Surface Occupancy
PFO RMP	Price Field Office Resource Management Plan
PLPCO	Public Land Policy Coordination Office
RMP	ROD Resource Management Plan Record of Decision
RMP	Resource Management Plan
RFD	Reasonably Foreseeable Development
ROD	Record of Decision
SHPO	State Historic Preservation Office
SITLA	School and Institutional Trust Lands Administration
UDWR	Utah Division of Wildlife Resources
USDI	United States Department of the Interior
USO	Utah State Office
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
WO	Washington Office
WSA	Wilderness Study Area
WTP EIS	West Tavaputs Plateau Natural Gas Full Field Development Plan Environment Impact Statement
WTP EIS ROD	West Tavaputs Plateau Natural Gas Full Field Development Plan Environmental Impact Statement Record of Decision

## Appendices

- Appendix A. Preliminary Parcels Included in November 2013 Oil and Gas Lease Sale Analysis  
Lease Stipulations and Lease Notices
- Appendix B. Maps
- Appendix C. Interdisciplinary Team Checklist
- Appendix D. Deferred Lands List
- Appendix E. Comment Responses

**Appendix A - Preliminary Parcels Included in November 2013 Oil and Gas Lease Sale Analysis**

**Group #1 Price-Sunnyside Area – Nov2013 Lease Sale Parcel List – Onsite 23 April 2013**

UT1113 – 6491 - 180  
T. 13 S., R. 11 E., Salt Lake  
Sec. 25: SW, W2SE;  
Sec. 35: All.  
880.00 Acres  
Carbon County, Utah  
Price Field Office

**STIPULATIONS**

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range  
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas  
UT-S-305: Controlled Surface Use – Noxious Weed

**LEASE NOTICES**

UT-LN-45: Migratory Bird  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6492 - 181  
T. 14 S., R. 11 E., Salt Lake  
Sec. 1: Lots 1-8, SWNE, S2NW, W2SE;  
Sec. 12: W2NE, W2, NWSE;  
Sec. 13: All.  
1,618.98 Acres  
Carbon County, Utah  
Price Field Office

**STIPULATIONS**

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range  
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas  
UT-S-305: Controlled Surface Use – Noxious Weed



LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6493 - 182

T. 14 S., R. 11 E., Salt Lake  
Secs. 3, 10 and 11: All.

1,970.26 Acres  
Carbon County, Utah  
Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range  
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas  
UT-S-260: Timing Limitation – Raptor Habitat  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-53: Riparian Areas  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6494 - 183

T. 14 S., R. 11 E., Salt Lake  
Secs. 14 and 15: All;  
Sec. 22: E2, E2W2.

1,760.00 Acres  
Carbon County, Utah  
Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams

UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range  
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas  
UT-S-260: Timing Limitation – Raptor Habitat  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6495 - 184  
T. 14 S., R. 11 E., Salt Lake  
Sec. 21: All;  
Sec. 28: W2NE, E2W2, NWNW, NWSE.  
960.00 Acres  
Carbon County, Utah  
Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6496 - 185  
T. 14 S., R. 11 E., Salt Lake  
Secs. 23, 24 and 25: All.  
1,924.35 Acres  
Carbon County, Utah  
Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality

UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-260: Timing Limitation – Raptor Habitat  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6530 - 221  
T. 13 S., R. 12 E., Salt Lake  
Secs. 28 and 29: All;  
Sec. 30: E2, E2NW;  
Sec. 31: Lot 4, E2, E2SW.  
2,117.87 Acres  
Carbon County, Utah  
Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range  
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas  
UT-S-260: Timing Limitation – Raptor Habitat  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6531 - 222  
T. 13 S., R. 12 E., Salt Lake  
Secs. 33, 34 and 35: All.  
1,920.00 Acres  
Carbon County, Utah  
Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range  
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas  
UT-S-260: Timing Limitation – Raptor Habitat  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6532 - 223

T. 14 S., R. 12 E., Salt Lake

Sec. 1: All;

Sec. 12: Lots 1-4, W2E2, N2NW, SWNW, SW;

Sec. 13: Lots 1-4, W2E2, NW, E2SW.

1,809.12 Acres

Carbon County, Utah

Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range  
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6533 - 224

T. 14 S., R. 12 E., Salt Lake

Sec. 3: All;

Sec. 4: Lots 1, 2, 4, S2N2, S2;

Sec. 5: Lots 1-4, SENE, S2NW, S2.  
1,893.89 Acres  
Carbon County, Utah  
Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range  
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas  
UT-S-260: Timing Limitation – Raptor Habitat  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6534 - 225  
T. 14 S., R. 12 E., Salt Lake  
Secs. 6, 7 and 18: All;  
Sec. 31: Lots 1-4, E2W2.  
2,326.04 Acres  
Carbon County, Utah  
Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range  
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas  
UT-S-260: Timing Limitation – Raptor Habitat  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species

UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6535 - 226

T. 14 S., R. 12 E., Salt Lake

Sec. 8: All;

Sec. 9: NWNE, W2;

Sec. 17: N2, SW, N2SE, SWSE;

Sec. 20: NWNE, SENE, NESW.

1,720.00 Acres

Carbon County, Utah

Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range  
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas  
UT-S-260: Timing Limitation – Raptor Habitat  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6536 - 227

T. 14 S., R. 12 E., Salt Lake

Sec. 10: E2NE, SWNE, SE;

Sec. 11: E2, N2NW, SWNW;

Sec. 14: NE, SWNW, E2SW, SWSW, W2SE;

Sec. 15: NWNE, W2NW, SESE;

Sec. 23: NENW, NESE;

Sec. 24: NWNW;

Sec. 25: NWNE, NWNW, SWSE.

1,520.00 Acres

Carbon County, Utah

Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality

UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range  
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas  
UT-S-260: Timing Limitation – Raptor Habitat  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6578 - 287 Adjusted for Coal Conflicts  
T. 13 S., R. 13 E., Salt Lake  
Sec. 31: All.  
675.44 Acres

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-156: Timing Limitation – High-Country Watershed Areas  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range  
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas  
UT-S-260: Timing Limitation – Raptor Habitat  
UT-S-269: No Surface Occupancy – Mexican Spotted Owl Nest  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-53: Riparian Areas  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis  
T&E 6: Mexican Spotted Owl

UT1113 – 6580 - 289  
T. 14 S., R. 13 E., Salt Lake  
Secs. 8, 17 and 18: All.  
1,925.80 Acres

Carbon County, Utah  
Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range  
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas  
UT-S-260: Timing Limitation – Raptor Habitat  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6582 - 291  
T. 14 S., R. 13 E., Salt Lake  
Secs. 20, 21, 28 and 29: All.  
2,560.00 Acres  
Carbon County, Utah  
Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range  
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas  
UT-S-260: Timing Limitation – Raptor Habitat  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-53: Riparian Areas  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6585 - 294



T. 14 S., R. 13 E., Salt Lake  
Secs. 33, 34 and 35: All.  
1,945.44 Acres  
Carbon County, Utah  
Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range  
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas  
UT-S-260: Timing Limitation – Raptor Habitat  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

**Group #2 Cedar Mountain Area – Nov 2013 Lease Sale Parcel List – Onsite 2 April 2013**

UT1113 – 6470 - 159

T. 16 S., R. 10 E., Salt Lake  
Sec. 5: ALL excluding RR ROW SL071787 (2.3 acres);  
Sec. 7: Lots 1-4, NE, E2NW, SESW;  
Sec. 8: N2, E2SW, W2SE, SESE excluding RR ROW SL071787 (3.5 acres);  
Sec. 9: N2;  
Sec. 17: NENE;  
Sec. 18: Lot 1, NENW.

2,019.21 Acres  
Emery County, Utah  
Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range  
UT-S-218: Controlled Surface Use – White-tailed Prairie Dog  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6471 - 160 LLD reduced due to time constraints

T. 16 S., R. 10 E., Salt Lake  
Sec. 17: SESW, S2SE;  
Sec. 18: SWNE, W2SE;  
Sec. 20: N2NE, NENW;  
Sec. 21: N2N2, SWNE.

560.00 Acres

Emery County, Utah

Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-232: Timing Limitation – Mule Deer and Elk Crucial Winter Range  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6472 - 161

T. 17 S., R. 10 E., Salt Lake  
Sec. 1: Lots 2-4, S2N2, SW.

440.00 Acres

Emery County, Utah

Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6499 - 188

T. 16 S., R. 11 E., Salt Lake

Sec. 1: Lots 1, 2, 5, 6, SENE, W2SW, SE;

Secs. 12 and 13: All.

1,715.76 Acres

Emery County, Utah

Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis  
T&E 3: Endangered Fish of the Colorado River Drainage Basin

UT1113 – 6500 - 189

T. 16 S., R. 11 E., Salt Lake

Sec. 14: SESW, SWSE;

Sec. 15: E2SE, SWSE;

Sec. 21: SENE, E2SE, SWSE;

Sec. 22: NENE, NWNW, S2N2, S2;

Secs. 23 and 24: All.

2,200.00 Acres

Emery County, Utah

Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent

UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-160: Controlled Surface Use – Visual Resources – VRM II  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-49: Utah Sensitive Species  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis  
T&E 3: Endangered Fish of the Colorado River Drainage Basin

UT1113 – 6501 - 190

T. 16 S., R. 11 E., Salt Lake

Sec. 19: All;

Sec. 20: NENW, W2W2;

Sec. 29: W2NW;

Sec. 30: All;

Sec. 31: Lots 1-3, W2NE, E2NW, NESW.

1,818.30 Acres

Emery County, Utah

Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-218: Controlled Surface Use – White-tailed Prairie Dog  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6502 - 191

T. 16 S., R. 11 E., Salt Lake

Secs. 25 and 26: All;

Sec. 27: N2, NWSW, SE;

Sec. 28: NE, S2NW, N2S2, SWSW;

Sec. 29: SESE;  
Sec. 33: NWNW.

2,320.00 Acres  
Emery County, Utah  
Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-160: Controlled Surface Use – Visual Resources – VRM II  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-218: Controlled Surface Use – White-tailed Prairie Dog  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6503 - 192  
T. 16 S., R. 11 E., Salt Lake  
Sec. 33: E2NE, SWNE, S2;  
Sec. 34: E2, E2NW, SWNW, SW;  
Sec. 35: All.

1,680.00 Acres  
Emery County, Utah  
Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species

UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6504 - 193  
T. 17 S., R. 11 E., Salt Lake  
Secs. 1, 11 and 12: All.  
1,980.64 Acres  
Emery County, Utah  
Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6505 - 194  
T. 17 S., R. 11 E., Salt Lake  
Secs. 3, 4 and 10: All.  
1,979.97 Acres  
Emery County, Utah  
Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6506 - 195

T. 17 S., R. 11 E., Salt Lake

Sec. 5: Lot 1, S2NE, S2;

Sec. 7: Lot 4, E2, E2SW;

Secs. 8 and 9: All.

2,193.56 Acres

Emery County, Utah

Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6507 - 196

T. 17 S., R. 11 E., Salt Lake

Secs. 13, 14 and 15: All.

1,945.28 Acres

Emery County, Utah

Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-269: No Surface Occupancy – Mexican Spotted Owl Nest  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis  
T&E 6: Mexican Spotted Owl

UT1113 – 6508 – 197 CLDQ NNL (80.00 Acres) Removed

T. 17 S., R. 11 E., Salt Lake

Sec. 20: All;

Sec. 21: N2, SW, N2SE, SWSE;

Sec. 28: NWNE, S2NE, NW, S2;

Sec. 29: All.

2480.00 Acres

Emery County, Utah

Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-160: Controlled Surface Use – Visual Resources – VRM II  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6509 – 198 CLDQ NSO

T. 17 S., R. 11 E., Salt Lake

Secs. 22, 23, and 24: All.

1942.01 Acres

Emery County, Utah

Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent



UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-160: Controlled Surface Use – Visual Resources – VRM II  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-269: No Surface Occupancy – Mexican Spotted Owl Nest  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis  
T&E 6: Mexican Spotted Owl

UT1113 – 6510 - 199 CLDQ NSO

T. 17 S., R. 11 E., Salt Lake

Secs. 25, 26, and 27: All.

1937.65 Acres

Emery County, Utah

Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6511 - 200

T. 17 S., R. 11 E., Salt Lake

Secs. 33, 34 and 35: All.

1,921.90 Acres

Emery County, Utah

Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6512 - 201

T. 18 S., R. 11 E., Salt Lake

Secs. 1, 12 and 13: All.

1,961.00 Acres

Emery County, Utah

Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas  
UT-S-269: No Surface Occupancy – Mexican Spotted Owl Nest  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis  
T&E 6: Mexican Spotted Owl

UT1113 – 6513 - 202

T. 18 S., R. 11 E., Salt Lake

Secs. 3 and 4: All;

Sec. 5: Lot 1, SENE, E2SE;

Sec. 8: NENE;

Sec. 9: N2, E2SE.

1,972.15 Acres

Emery County, Utah

Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality

UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent

UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent

UT-S-126: No Surface Occupancy – Natural Springs

UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams

UT-S-169: Controlled Surface Use – Cultural Resource Inventories

UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)

UT-S-177: Controlled Surface Use – Fossil Resources

UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas

UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat

UT-LN-45: Migratory Bird

UT-LN-99: Regional Ozone Formations Controls

UT-LN-102: Air Quality Analysis

UT1113 – 6514 - 203

T. 18 S., R. 11 E., Salt Lake

Secs. 10, 11 and 14: All;

Sec. 15: N2, SE.

2,400.00 Acres

Emery County, Utah

Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality

UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent

UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent

UT-S-126: No Surface Occupancy – Natural Springs

UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams

UT-S-156: Timing Limitation – High-Country Watershed Areas

UT-S-169: Controlled Surface Use – Cultural Resource Inventories

UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)

UT-S-177: Controlled Surface Use – Fossil Resources

UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas

UT-S-269: No Surface Occupancy – Mexican Spotted Owl Nest

UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat225  
UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis  
T&E 6: Mexican Spotted Owl

UT1113 – 6540 - 231 EXISTING WELL(S)  
T. 16 S., R. 12 E., Salt Lake  
Sec. 1: Lots 1-4, S2N2, SW, N2SE, SWSE.  
594.20 Acres  
Emery County, Utah  
Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-260: Timing Limitation – Raptor Habitat  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICESUT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-87: Existing Unplugged Well  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6541 - 232 EXISTING WELL(S)  
T. 16 S., R. 12 E., Salt Lake  
Sec. 4: All, excluding O&G U54038 (38.6 acres);  
Sec. 9: All, excluding O&G U54038 (27.8 acres);  
Sec. 10: E2E2, W2;  
Sec. 15: All.  
2,331.24 Acres  
Emery County, Utah  
Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent

UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-218: Controlled Surface Use – White-tailed Prairie Dog  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-87: Existing Unplugged Well  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6542 - 233

T. 16 S., R. 12 E., Salt Lake

Sec. 5: Lots 1-4, S2N2, SW, N2SE, excluding RR ROW SL044215 (12.4 acres);

Sec. 6: All, excluding RR ROW SL044215 (14.2 acres);

Sec. 7: Lots 1-7.

1,560.74 Acres

Emery County, Utah

Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis  
T&E 3: Endangered Fish of the Colorado River Drainage Basin

UT1113 – 6543 - 234

#### EXISTING WELL(S)

T. 16 S., R. 12 E., Salt Lake

Sec. 11: All, Excluding RR ROW O&G U54038 (20.4 acres);

Sec. 12: E2NE, S2 excluding RR ROW O&G U54038 (15.2 acres);

Sec. 13: All, Excluding RR ROW U54038 (25.3 acres);

Sec. 14: All.

2,259.10 Acres

Emery County, Utah

Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-260: Timing Limitation – Raptor Habitat  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-53: Riparian Areas  
UT-LN-87: Existing Unplugged Well  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6544 - 235

T. 16 S., R. 12 E., Salt Lake

Secs. 17 and 18: All.

1,411.38 Acres

Emery County, Utah

Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species

UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6545 - 236

T. 16 S., R. 12 E., Salt Lake

Sec. 19: Lots 1-8, S2NE, SENW, E2SW, SE;

Sec. 30: E2;

Sec. 31: All.

1,754.44 Acres

Emery County, Utah

Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-160: Controlled Surface Use – Visual Resources – VRM II  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-269: No Surface Occupancy – Mexican Spotted Owl Nest  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis  
T&E 3: Endangered Fish of the Colorado River Drainage Basin  
T&E 6: Mexican Spotted Owl

UT1113 – 6546 - 237

T. 16 S., R. 12 E., Salt Lake

Sec. 20: SWNW, SW;

Sec. 28: SW;

Sec. 29: W2NE, W2, SE;

Sec. 33: W2NE, SENE, W2, SE;

Sec. 34: W2SW.

1,600.00 Acres

Emery County, Utah

Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent

UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-160: Controlled Surface Use – Visual Resources – VRM II  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis  
T&E 3: Endangered Fish of the Colorado River Drainage Basin

UT1113 – 6546 – 237A  
T. 16 S., R. 12 E., Salt Lake  
Secs. 22, 23, 24 and 25: All.  
2,560.00 Acres  
Emery County, Utah  
Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-269: No Surface Occupancy – Mexican Spotted Owl Nest  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis  
T&E 6: Mexican Spotted Owl

UT1113 – 6550 - 241  
T. 17 S., R. 12 E., Salt Lake  
Secs. 6 and 7: All.  
1,589.79 Acres  
Emery County, Utah



Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6552 - 243

T. 17 S., R. 12 E., Salt Lake

Secs. 17 and 18: All;

Sec. 19: Lots 1-3, 6, 7, NE, E2NW, N2SE, SESE;

Sec. 30: Lots 2, 3.

1,987.89 Acres

Emery County, Utah

Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6556 - 247  
T. 17 S., R. 12 E., Salt Lake  
Sec. 29: All;  
Sec. 30: N2NE, SENE, SESW, SE;  
Sec. 31: All.  
1,720.44 Acres  
Emery County, Utah  
Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-248: Timing Limitation – Mule Deer Fawning and Elk Calving Areas  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6587 - 296  
T. 16 S., R. 13 E., Salt Lake  
Sec. 19: All, excluding RR ROW SL044215 (3.4 acres);  
Sec. 20: All, excluding RR ROW SL044215 (24.6 acres);  
Sec. 21: N2.  
1,593.00 Acres  
Emery County, Utah  
Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat

UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6588 - 297

T. 16 S., R. 13 E., Salt Lake

Sec. 28: All, excluding RR ROW SL044215 (26.4 acres);

Sec. 33: All, excluding RR ROW SL044215 (4.6 acres);

Sec. 34: All, excluding RR ROW SL044215 (23.4 acres);

Sec. 35: All, excluding RR ROW SL044215 (23.4 acres).

2494.60 Acres

Emery County, Utah

Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat  
UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6589 - 298

T. 16 S., R. 13 E., Salt Lake

Sec. 29: All excluding RR ROW SL044215 (3.4 acres);

Secs. 30 and 31: All.

1,961.60 Acres

Emery County, Utah

Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources

UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-17: Pronghorn Fawning Habitat

UT-LN-45: Migratory Bird

UT-LN-53: Riparian Areas

UT-LN-99: Regional Ozone Formations Controls

UT-LN-102: Air Quality Analysis

**Group #3 Emery Area – Nov2013 Lease Sale Parcel List – Onsite 4April2013**

UT1113 – 6401 - 073

T. 21 S., R. 7 E., Salt Lake

Sec. 12: Lots 1-4, W2NE, SENE, SESW;

Sec. 13: All;

Sec. 14: Lots 1, 4, SENE;

Sec. 24: All.

1,815.93 Acres

Emery County, Utah

Price Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-10: No Surface Occupancy – Rock Art ACEC

UT-S-91: No Surface Occupancy – Old Spanish National Historic Trail  
Trail Springs/Lost Springs Wash

UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent

UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent

UT-S-126: No Surface Occupancy – Natural Springs

UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams

UT-S-169: Controlled Surface Use – Cultural Resource Inventories

UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

UT-LN-65: Old Spanish Trail

UT-LN-99: Regional Ozone Formations Controls

UT-LN-102: Air Quality Analysis

T&E-05: Listed Plant Species

T&E-14: Last Chance Townsendia (*Townsendia aprica*)

T&E-15: Wright Fishhook Cactus (*Sclerocactus wrightiae*)

UT1113 – 6402 - 074

T. 21 S., R. 7 E., Salt Lake

Sec. 23: Lots 1-7, 10-12, E2NW;

Secs. 25 and 26: All;

Sec. 27: Lots 2, 6, E2NE.

2,027.18 Acres

Emery County, Utah  
Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-10: No Surface Occupancy – Rock Art ACEC  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis  
T&E-05: Listed Plant Species  
T&E-14: Last Chance Townsendia (*Townsendia aprica*)  
T&E-15: Wright Fishhook Cactus (*Sclerocactus wrightiae*)

UT1113 – 6404 - 076                      LLD reduced due to time constraints  
T. 21 S., R. 7 E., Salt Lake  
    Sec. 33: SESE;  
    Secs. 34 and 35: All.  
1,353.43 Acres  
Emery County, Utah  
Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-10: No Surface Occupancy – Rock Art ACEC  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis  
T&E-05: Listed Plant Species  
T&E-14: Last Chance Townsendia (*Townsendia aprica*)  
T&E-15: Wright Fishhook Cactus (*Sclerocactus wrightiae*)

UT1113 – 6430 - 120  
T. 20 S., R. 8 E., Salt Lake  
Secs. 11 and 14: All.  
1,280.00 Acres  
Emery County, Utah  
Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis  
T&E-05: Listed Plant Species  
T&E-15: Wright Fishhook Cactus (*Sclerocactus wrightiae*)  
T&E-17: San Rafael Cactus

UT1113 – 6431 - 121  
T. 20 S., R. 8 E., Salt Lake  
Secs. 22, 23 and 27: All;  
Sec. 26: W2.  
2,240.00 Acres  
Emery County, Utah  
Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species

UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis  
T&E-05: Listed Plant Species  
T&E-15: Wright Fishhook Cactus (*Sclerocactus wrightiae*)  
T&E-17: San Rafael Cactus

UT1113 – 6432 - 122  
T. 20 S., R. 8 E., Salt Lake  
Sec. 33: N2, N2S2, SESE;  
Secs. 34 and 35: All.  
1,800.00 Acres  
Emery County, Utah  
Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis  
T&E-05: Listed Plant Species  
T&E-15: Wright Fishhook Cactus (*Sclerocactus wrightiae*)  
T&E-17: San Rafael Cactus

UT1113 – 6433 - 123  
T. 21 S., R. 8 E., Salt Lake  
Secs. 1, 11 and 12: All.  
2,095.30 Acres  
Emery County, Utah  
Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories

UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis  
T&E-05: Listed Plant Species  
T&E-15: Wright Fishhook Cactus (*Sclerocactus wrightiae*)  
T&E-17: San Rafael Cactus (*Pediocactus Despainii*)

UT1113 – 6434 - 124

T. 21 S., R. 8 E., Salt Lake

Sec. 3: All;

Sec. 4: Lots 1, 8-10, E2SE, SWSE;

Sec. 8: E2SE;

Sec. 9: E2, E2NW, SWNW, SW;

Sec. 10: All.

2,421.84 Acres

Emery County, Utah

Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-10: No Surface Occupancy – Rock Art ACEC  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis  
T&E-05: Listed Plant Species  
T&E-15: Wright Fishhook Cactus (*Sclerocactus wrightiae*)  
T&E-17: San Rafael Cactus (*Pediocactus Despainii*)

UT1113 – 6435 - 125

T. 21 S., R. 8 E., Salt Lake

Secs. 13, 14, 23 and 24: All.



2,560.00 Acres  
Emery County, Utah  
Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-10: No Surface Occupancy – Rock Art ACEC  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis  
T&E-05: Listed Plant Species  
T&E-15: Wright Fishhook Cactus (*Sclerocactus wrightiae*)  
T&E-17: San Rafael Cactus (*Pediocactus Despainii*)

UT1113 – 6436 - 126  
T. 21 S., R. 8 E., Salt Lake  
Secs. 15, 21, 22 and 27: All.

2,560.00 Acres  
Emery County, Utah  
Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-10: No Surface Occupancy – Rock Art ACEC  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-99: Regional Ozone Formations Controls

UT-LN-102: Air Quality Analysis  
T&E-05: Listed Plant Species  
T&E-15: Wright Fishhook Cactus (*Sclerocactus wrightiae*)  
T&E-17: San Rafael Cactus (*Pediocactus Despainii*)

UT1113 – 6437 - 127

T. 21 S., R. 8 E., Salt Lake  
Sec. 17: E2, E2SW;  
Sec. 19: S2NE, SE;  
Sec. 20: All.

1,280.00 Acres  
Emery County, Utah  
Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis  
T&E-05: Listed Plant Species  
T&E-15: Wright Fishhook Cactus (*Sclerocactus wrightiae*)  
T&E-17: San Rafael Cactus (*Pediocactus Despainii*)

UT1113 – 6438 - 128

T. 21 S., R. 8 E., Salt Lake  
Secs. 25, 26 and 35: All.

1,920.00 Acres  
Emery County, Utah  
Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-10: No Surface Occupancy – Rock Art ACEC  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs

UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-53: Riparian Areas  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis  
T&E-05: Listed Plant Species  
T&E-15: Wright Fishhook Cactus (*Sclerocactus wrightiae*)  
T&E-17: San Rafael Cactus (*Pediocactus Despainii*)

UT1113 – 6439 - 129

T. 21 S., R. 8 E., Salt Lake

Secs. 28, 29 and 34: All;

Sec. 33: N2, E2SW, SWSW, SE.

2,520.00 Acres

Emery County, Utah

Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-10: No Surface Occupancy – Rock Art ACEC  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis  
T&E-05: Listed Plant Species  
T&E-15: Wright Fishhook Cactus (*Sclerocactus wrightiae*)  
T&E-17: San Rafael Cactus (*Pediocactus Despainii*)

UT1113 – 6440 - 130

T. 21 S., R. 8 E., Salt Lake

Sec. 30: Lot 4, E2, E2W2;

Sec. 31: All.

1,136.20 Acres

Emery County, Utah

Price Field Office

STIPULATIONS

- UT-S-01: Air Quality
- UT-S-10: No Surface Occupancy – Rock Art ACEC
- UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
- UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
- UT-S-126: No Surface Occupancy – Natural Springs
- UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
- UT-S-169: Controlled Surface Use – Cultural Resource Inventories
- UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)
- UT-S-177: Controlled Surface Use – Fossil Resources
- UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

- UT-LN-45: Migratory Bird
- UT-LN-49: Utah Sensitive Species
- UT-LN-51: Special Status Plants: Not Federally Listed
- UT-LN-99: Regional Ozone Formations Controls
- UT-LN-102: Air Quality Analysis
- T&E-05: Listed Plant Species
- T&E-15: Wright Fishhook Cactus (*Sclerocactus wrightiae*)
- T&E-17: San Rafael Cactus (*Pediocactus Despainii*)

**Group #4 Green River Area – Nov2013 Lease Sale Parcel List – Onsite 3April2013**

UT1113 – 6612 - 321  
 T. 19 S., R. 13 E., Salt Lake  
     Sec. 25: E2;  
     Secs. 26, 27 and 28: All.  
 2,240.00 Acres  
 Emery County, Utah  
 Price Field Office

STIPULATIONS

- UT-S-01: Air Quality
- UT-S-10: No Surface Occupancy – Rock Art ACEC
- UT-S-91: No Surface Occupancy – Old Spanish National Historic Trail  
Trail Springs/Lost Springs Wash
- UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent
- UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent
- UT-S-126: No Surface Occupancy – Natural Springs
- UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams
- UT-S-169: Controlled Surface Use – Cultural Resource Inventories
- UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)
- UT-S-177: Controlled Surface Use – Fossil Resources
- UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-53: Riparian Areas  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-65: Old Spanish Trail  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6614 - 323  
T. 19 S., R. 13 E., Salt Lake  
Secs. 33, 34 and 35: All.  
1,920.00 Acres  
Emery County, Utah  
Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-91: No Surface Occupancy – Old Spanish National Historic Trail  
Trail Springs/Lost Springs Wash  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-65: Old Spanish Trail  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6649 - 395  
T. 19 S., R. 14 E., Salt Lake  
Sec. 20: W2.  
320.00 Acres  
Emery County, Utah  
Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams

UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6653 - 399

T. 20 S., R. 14 E., Salt Lake

Sec. 3: All excluding RR ROW SL034773 (7.8 ac.);

Secs. 4 and 9: All.

1,922.60 Acres

Emery County, Utah

Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-91: No Surface Occupancy – Old Spanish National Historic Trail  
Trail Springs/Lost Springs Wash  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-260: Timing Limitation – Raptor Habitat  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-53: Riparian Areas  
UT-LN-65: Old Spanish Trail  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6654 - 400

T. 20 S., R. 14 E., Salt Lake

Secs. 5, 6 and 7: All.

1,929.61 Acres

Emery County, Utah

Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-91: No Surface Occupancy – Old Spanish National Historic Trail  
Trail Springs/Lost Springs Wash  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-65: Old Spanish Trail  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6655 - 401  
T. 20 S., R. 14 E., Salt Lake  
Secs. 8, 17 and 18: All.  
1,920.92 Acres  
Emery County, Utah  
Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-91: No Surface Occupancy – Old Spanish National Historic Trail  
Trail Springs/Lost Springs Wash  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-53: Riparian Areas  
UT-LN-65: Old Spanish Trail  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6656 - 402

T. 20 S., R. 14 E., Salt Lake  
Sec. 10: All;  
Sec. 11: All excluding RR ROW SL034773 (20 ac.);  
Sec. 14: All excluding RR ROW SL034773 (20 ac.);  
Sec. 15: All.

2,520.00 Acres  
Emery County, Utah  
Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-91: No Surface Occupancy – Old Spanish National Historic Trail  
Trail Springs/Lost Springs Wash  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-53: Riparian Areas  
UT-LN-65: Old Spanish Trail  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6658 - 404  
T. 20 S., R. 14 E., Salt Lake  
Secs. 20, 28 and 29: All.  
1,920.00 Acres  
Emery County, Utah  
Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-91: No Surface Occupancy – Old Spanish National Historic Trail  
Trail Springs/Lost Springs Wash  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed



LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-65: Old Spanish Trail  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6659 - 405

T. 20 S., R. 14 E., Salt Lake  
Secs. 21 and 22: All;  
Sec. 23: All excluding RR ROW SL034773 (20 ac.);  
Sec. 24: All.

2,540.00 Acres

Emery County, Utah

Price Field Office

STIPULATIONS

UT-S-01: Air Quality  
UT-S-91: No Surface Occupancy – Old Spanish National Historic Trail  
Trail Springs/Lost Springs Wash  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-49: Utah Sensitive Species  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-65: Old Spanish Trail  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6660 - 406

T. 20 S., R. 14 E., Salt Lake  
Sec. 25: All;  
Sec. 26: All excluding RR ROW SL034773 (19.7 ac.);  
Sec. 27: All.

1,900.30 Acres

Emery County, Utah

Price Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-91: No Surface Occupancy – Old Spanish National Historic Trail  
Trail Springs/Lost Springs Wash  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-65: Old Spanish Trail  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

UT1113 – 6661 - 407  
T. 20 S., R. 14 E., Salt Lake  
Secs. 33 and 34: All;  
Sec. 35: All excluding RR ROW SL034773 (0.7 ac.).  
1,919.30 Acres  
Emery County, Utah  
Price Field Office

#### STIPULATIONS

UT-S-01: Air Quality  
UT-S-91: No Surface Occupancy – Old Spanish National Historic Trail  
Trail Springs/Lost Springs Wash  
UT-S-97: No Surface Occupancy – Fragile Soils/Slopes Greater than 40 Percent  
UT-S-101: Controlled Surface Use – Fragile Soils/Slopes 20-40 Percent  
UT-S-126: No Surface Occupancy – Natural Springs  
UT-S-127: No Surface Occupancy – Intermittent and Perennial Streams  
UT-S-169: Controlled Surface Use – Cultural Resource Inventories  
UT-S-176: Controlled Surface Use – Fossil Resources (Preconstruction Surveys)  
UT-S-177: Controlled Surface Use – Fossil Resources  
UT-S-305: Controlled Surface Use – Noxious Weed

#### LEASE NOTICES

UT-LN-45: Migratory Bird  
UT-LN-51: Special Status Plants: Not Federally Listed  
UT-LN-53: Riparian Areas  
UT-LN-65: Old Spanish Trail  
UT-LN-99: Regional Ozone Formations Controls  
UT-LN-102: Air Quality Analysis

**LEASE STIPULATIONS SUMMARY**

WO IM 2005-003	<p style="text-align: center;"><b>CULTURAL RESOURCES</b></p> <p>This lease may be found to contain historic properties and/or resources protected under the National Historic Preservation Act, American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, E.O. 13007, or other statutes and executive orders. The BLM will not approve any ground disturbing activities that may affect any such properties or resources until it completes its obligations under applicable requirements of the NHPA and other authorities. The BLM may require modification to exploration or development proposals to protect such properties, or disapprove any activity that is likely to result in adverse effects that cannot be successfully avoided, minimized or mitigated.</p>
WO IM 2002-174	<p style="text-align: center;"><b>ENDANGERED SPECIES ACT</b></p> <p>The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status species. BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that would contribute to a need to list such a species or their habitat. BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. BLM will not approve any ground-disturbing activity until it completes its obligations under applicable requirements of the ESA as amended, 16 United States Code (USC) 1531 et seq. including completion of any required procedure for conference or consultation.</p>
UT-S-01 2008 RMPs Only	<p><b>AIR QUALITY</b></p> <p>All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower shall not emit more than 2 grams of NO<sub>x</sub> per horsepower-hour.</p> <p>Exception: This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.</p> <p>Modification: None</p> <p>Waiver: None</p> <p><b>AND</b></p> <p>All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gram of NO<sub>x</sub> per horsepower-hour.</p> <p>Exception: None</p> <p>Modification: None</p> <p>Waiver: None</p>

UT-S-10 PRICE	<p><b>NO SURFACE OCCUPANCY – ROCK ART ACEC</b> NSO for cultural values within Rock Art ACEC and to retain the cultural character of some of the best examples of prehistoric rock art in the Colorado Plateau. The Rock Art ACEC's are: Black Dragon, Head of Sinbad, Rochester/Muddy Petroglyphs, Lone Warrior, Sand Cove Spring, King's Crown, Short Creek, Dry Wash, North Salt Wash, Molen Seep, Big Hole, Cottonwood Canyon, Wild Horse Canyon, and Grassy Trail. Exception: None Modification: None Waiver: None</p>
UT-S-91 PRICE	<p><b>NO SURFACE OCCUPANCY – OLD SPANISH NATIONAL HISTORIC TRAIL</b> <b>TRAIL SPRINGS/LOST SPRINGS WASH</b> No surface occupancy within Trail Springs/Lost Springs Wash segment of the Old Spanish National Historic Trail to retain the historic character of the trail. Exception: The authorized officer may grant an exception if an environmental analysis demonstrates that the action would not impair the historic character of the trail. Modification: None Waiver: None</p>
UT-S-97 PRICE	<p><b>NO SURFACE OCCUPANCY – FRAGILE SOILS/SLOPES GREATER THAN 40 PERCENT</b> No surface occupancy on slopes greater than 40 percent. Exception: If after an environment analysis the authorized officer determines that it would cause undue or unnecessary degradation to pursue other placement alternatives; surface occupancy in the area may be authorized. In addition, a plan from the operator and BLM's approval of the plan shall be required before construction and maintenance could begin. The plan would have to include: An erosion control strategy GIS modeling Proper survey and design by a certified engineer. Modification: None Waiver: None</p>

<p>UT-S-101 PRICE</p>	<p><b>CONTROLLED SURFACE USE – FRAGILE SOILS/SLOPES 20-40 PERCENT</b>  In surface disturbing proposals regarding construction on slopes of 20 percent to 40 percent, include an approved erosion control strategy and topsoil segregation/restoration plan. Such construction must be properly surveyed and designed by a certified engineer and approved by the BLM prior to project implementation, construction, or maintenance.  Exception: If after an environment analysis the authorized officer determines that it would cause undue or unnecessary degradation to pursue other placement alternatives; surface occupancy in the area may be authorized. In addition, a plan from the operator and BLM’s approval of the plan would be required before construction and maintenance could begin. The plan must include:  An erosion control strategy  GIS modeling  Proper survey and design by a certified engineer.  Modification: Modifications also may be granted if a more detailed analysis is conducted and shows that impacts can be mitigated, e.g., Order I soil survey conducted by a qualified soil scientist, finds that surface disturbance activities could occur on slopes between 20 and 40 percent while adequately protecting areas from accelerated erosion.  Waiver: None</p>
<p>UT-S-126 PRICE</p>	<p><b>NO SURFACE OCCUPANCY – NATURAL SPRINGS</b>  No surface disturbance or occupancy will be maintained around natural springs to protect the water quality of the spring. The distance would be based on geophysical, riparian, and other factors necessary to protect the water quality of the springs. If these factors cannot be determined, a 660-foot buffer zone would be maintained.  Exception: An exception could be authorized if (a) there are no practical alternatives, (b) impacts could be fully mitigated, or (c) the action is designed to enhance the riparian resources.  Modification: None  Waiver: None</p>
<p>UT-S-127 PRICE</p>	<p><b>NO SURFACE OCCUPANCY – INTERMITTENT AND PERENNIAL STREAMS</b>  No new surface disturbance (excluding fence lines) will be allowed in areas within the 100-year floodplain or 100 meters (330 feet) on either side from the centerline, whichever is greater, along all perennial and intermittent streams, streams with perennial reaches, and riparian areas.  Exception: The authorized officer could authorize an exception if it could be shown that the project as mitigated eliminated the need for the restriction.  An exception could be authorized if (a) there are no practical alternatives, (b) impacts could be fully mitigated, or (c) the action is designed to enhance the riparian resources.  Modification: None  Waiver: None</p>

<p>UT-S-156 PRICE</p>	<p><b>TIMING LIMITATION – HIGH-COUNTRY WATERSHED AREAS</b>  High-country watershed areas (above 7,000 feet) will be closed seasonally from December 1 to April 15.  Exception: Upon review and monitoring, the authorized officer may grant exceptions because of climatic conditions if activities would not cause undue damage to soils or roads.  Modification: Season may be adjusted depending on climatic and vegetation conditions.  Waiver: Activities may be allowed as long as all surface disturbing activities are conducted before seasonal closure.</p>
<p>UT-S-160 PRICE</p>	<p><b>CONTROLLED SURFACE USE – VISUAL RESOURCES - VRM II</b>  Within VRM II areas, surface disturbing activities will comply with BLM Manual Handbook 8431-1 to retain the existing character of the landscape.  Exception: Recognized utility corridors are exempt. Temporary exceedance may be allowed during initial development phases.  Modification: None  Waiver: None</p>

<p>UT-S-169 PRICE</p>	<p><b>CONTROLLED SURFACE USE – CULTURAL RESOURCE INVENTORIES</b> Cultural resources inventories (including point, area, and linear features) will be required for all federal undertakings that could affect cultural resources or historic properties in areas of both direct and indirect impacts. Waiver of Inventory: Although complete Class III inventories will be performed for most land use actions, an authorized officer could waive inventory for any part of an Area of Potential Effect when one or more of the following conditions exist: Previous natural ground disturbance has modified the surface so extensively that the likelihood of finding cultural properties is negligible. (Note: This is not the same as being able to document that any existing sites may have been affected by surface disturbance; ground disturbance must have been so extensive as to reasonably preclude the location of any such sites.) Human activity within the last 50 years has created a new land surface to such an extent as to eradicate locatable traces of cultural properties. Existing Class II or equivalent inventory data are sufficient to indicate that the specific environmental situation did not support human occupation or use to a degree that would make further inventory information useful or meaningful. Previous inventories must have been conducted according to current professionally acceptable standards. Records are available and accurate and document the location, methods, and results of the inventory. Class II “equivalent inventory data” includes an adequate amount of acreage distributed across the same specific environmental situation that is located within the study area. Inventory at the Class III level has previously been performed, and records documenting the location, methods, and results of the inventory are available. Such inventories must have been conducted according to current professionally acceptable standards. Natural environmental characteristics (such as recent landslides or rock falls) are unfavorable to the presence of cultural properties. The nature of the proposed action is such that no impact can be expected on significant cultural resources. Conditions exist that could endanger the health or safety of personnel, such as the presence of hazardous materials, explosive ordnance, or unstable structures.</p>
<p>UT-S-176 PRICE</p>	<p><b>CONTROLLED SURFACE USE – FOSSIL RESOURCES (PRECONSTRUCTION SURVEYS)</b> Preconstruction paleo surveys will be required prior to any surface disturbing activity in the Morrison, Cedar Mountain, Blackhawk, North Horn, or Chinle Formations. Exception: The authorized officer may grant an exception if the area has previously been inventoried within the last three (3) years. Modification: None Waiver: None</p>
<p>UT-S-177 PRICE</p>	<p><b>CONTROLLED SURFACE USE – FOSSIL RESOURCES</b> A BLM permitted paleontologist will be required to be onsite during surface disturbance in any Potential Fossil Yield Classification (PFYC) 4 or 5 areas. Exceptions: None Modification: None Waiver: None</p>

<p>UT-S-218 MOAB, VERNAL &amp; PRICE</p>	<p><b>CONTROLLED SURFACE USE – WHITE-TAILED PRAIRIE DOG</b> No surface-disturbing activities within 660 feet of prairie dog colonies identified within prairie dog habitat. No permanent aboveground facilities are allowed within the 660 feet buffer. Exception: An exception may be granted by the authorized officer if the applicant submits a plan that indicates that impacts of the proposed action can be adequately mitigated or, if due to the size of the town, there is no reasonable location to develop a lease and avoid colonies the authorized officer will allow for loss of prairie dog colonies and/or habitat to satisfy terms and conditions of the lease. Modification: The authorized officer may modify the boundaries of the stipulation area if portions of the area does not include prairie dog habitat or <i>active</i> colonies are found outside current defined area, as determined by BLM. Waiver: May be granted if in the leasehold if it is determined that habitat no longer exists or has been destroyed.</p>
<p>UT-S-232 PRICE</p>	<p><b>TIMING LIMITATION – MULE DEER AND ELK CRUCIAL WINTER RANGE</b> No surface disturbing or otherwise disruptive activities within mule deer and elk crucial winter range from December 1 to April 15. Exception: Upon review and monitoring, the authorized officer may grant exceptions because of climatic and/or range conditions if certain criteria are met and if activities would not cause undue stress to deer and/or elk populations or habitats. Modification: Season may be adjusted depending on climatic and range conditions. Waiver: A waiver may be granted if the winter range habitat is unsuitable for or unoccupied during winter months by deer/elk and there is no reasonable likelihood of future winter range use.</p>
<p>UT-S-248 PRICE</p>	<p><b>TIMING LIMITATION – MULE DEER FAWNING AND ELK CALVING AREAS</b> No surface disturbing or otherwise disruptive activities within mule deer fawning and elk calving areas from May 15 to July 5. Exception: Upon review and monitoring, the authorized officer may grant exceptions because of climatic and/or range conditions if certain criteria are met and if activities would not cause undue stress to deer and elk populations or habitats. Modification: Season may be adjusted depending on climatic and range conditions. Waiver: A waiver may be granted if the fawning and calving habitat is unsuitable or unoccupied by deer/elk and there is no reasonable likelihood of future use.</p>



<p>UT-S-260 PRICE</p>	<p><b>TIMING LIMITATION – RAPTOR HABITAT</b>  Raptor nesting complexes and known raptor nest sites will be closed seasonally from February 1 to July 15 within ½ mile of occupied nests.  Exception: The authorized officer may grant an exception if the raptor nest in question is deemed to be inactive by May 31 and if the proposed activity would not result in a permanent structure or facility that would cause the subject nest to become unsuitable for nesting in future years.  Modification: Season may be adjusted depending on climatic and range conditions. Distance may be adjusted if natural features provide adequate visual screening.  Waiver: This stipulation may be waived if, in cooperation with the UDWR, it is determined that the site has been permanently abandoned or unoccupied for a minimum of 3 years.</p>
<p>UT-S-269 PRICE</p>	<p><b>NO SURFACE OCCUPANCY – MEXICAN SPOTTED OWL NESTS</b>  No surface occupancy within 1/2 mile of known Mexican Spotted Owl (MSO) nests.  Exception: The authorized officers may grant an exception if an environmental analysis demonstrates that the action would not impair the function or utility of the site for nesting or other owl-sustaining activities.  Modification: The authorized officers may modify the NSO area in extent if an environmental analysis finds that a portion of the area is nonessential to site utility or function or if natural features provide adequate visual or auditory screening.  Waiver: A waiver may be granted if the MSO is de-listed and the area is determined as not necessary for the survival and recovery of the MSO.</p>
<p>UT-S-305 PRICE</p>	<p><b>CONTROLLED SURFACE USE – NOXIOUS WEED</b>  Continue implementation of noxious weed and invasive species control actions in accordance with national guidance and local weed management plans, in cooperation with State, federal, affected counties, adjoining private land owners, and other partners or interests directly affected. Implement Standard Operating Procedures and Mitigation Measures for herbicide use as well as prevention measures for noxious and invasive plants identified in the Record of Decision Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States PEIS and associated documents.  Exception: None  Modification: None  Waiver: None</p>

**LEASE NOTICES SUMMARY**

UT-LN-17 Price	<b>CRUCIAL PRONGHORN FAWNING HABITAT</b> The Lessee/operator is given notice that lands in this lease have been identified as containing crucial antelope fawning habitat. Exploration, drilling, and other development activities may be restricted from April 15 through June 15 to protect antelope fawning. Modifications may be required in the Surface Use Plan of Operations including seasonal timing restrictions to protect the species and its habitat.
UT-LN-45 ALL OFFICES	<b>MIGRATORY BIRD</b> The lessee/operator is given notice that surveys for nesting migratory birds may be required during migratory bird breeding season whenever surface disturbances and/or occupancy is proposed in association with fluid mineral exploration and development within priority habitats. Surveys should focus on identified priority bird species in Utah. Field surveys will be conducted as determined by the authorized officer of the Bureau of Land Management. Based on the result of the field survey, the authorized officer will determine appropriate buffers and timing limitations.
UT-LN-49 ALL OFFICES	<b>UTAH SENSITIVE SPECIES</b> The lessee/operator is given notice that no surface use or otherwise disruptive activity would be allowed that would result in direct disturbance to populations or individual special status plant and animal species, including those listed on the BLM sensitive species list and the Utah sensitive species list. The lessee/operator is also given notice that lands in this parcel have been identified as containing potential habitat for species on the Utah Sensitive Species List. Modifications to the Surface Use Plan of Operations may be required in order to protect these resources from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, Migratory Bird Treaty Act and 43 CFR 3101.1-2.
UT-LN-51 ALL OFFICES	<b>SPECIAL STATUS PLANTS: NOT FEDERALLY LISTED</b> The lessee/operator is given notice that lands in this lease have been identified as containing special status plants, not federally listed, and their habitats. Modifications to the Surface Use Plan of Operations may be required in order to protect the special status plants and/or habitat from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, and 43 CFR 3101.1-2.
UT-LN-53 ALL OFFICES	<b>RIPARIAN AREAS</b> The lessee/operator is given notice that this lease has been identified as containing riparian areas. No surface use or otherwise disruptive activity allowed within 100 meters of riparian areas unless it can be shown that (1) there is no practicable alternative; (2) that all long-term impacts are fully mitigated; or (3) that the construction is an enhancement to the riparian areas. Modifications to the Surface Use Plan of Operations may be required in accordance with section 6 of the lease terms and 43CFR3101.1-2.
UT-LN-65 PRICE MOAB	<b>OLD SPANISH TRAIL</b> The lessee/operator is given notice that lands in this lease are crossed by the Old Spanish Trail National Historic Trail [Old Spanish Trail Recognition Act of 2002, (Old Spanish Trail PLO 107-325)]. Modifications to the Surface Use Plan of Operations may be required in order to protect the historic integrity of the trail. Coordination with the National Park Service may be necessary.

<p>UT-LN-87 ALL OFFICES</p>	<p><b>EXISTING UNPLUGGED WELL</b> The lessee/operator is given notice that an existing unplugged well is located in ____ Sec. ____, T ____, R ____ (API# ____). An oil and gas bond adequate to cover plugging costs will be required prior to lease issuance. The well is in need of immediate attention, and the successful bidder should plan to perform work on the well soon after lease issuance.</p>
<p>UT-LN-96 VERNAL &amp; PRICE</p>	<p><b>AIR QUALITY</b> The lessee is given notice that the Bureau of Land Management (BLM) in coordination with the U.S. Environmental Protection Agency and the Utah Department of Air Quality, among others, have developed the following air quality mitigation measures that may be applied to any development proposed on this lease. Integration of and adherence to these measures may help minimize adverse local or regional air quality impacts from oil and gas development (including but not limited to construction, drilling, and production). All internal combustion equipment would be kept in good working order. Water or other approved dust suppressants would be used at construction sites and along roads, as determined appropriate by the Authorized Officer. Open burning of garbage or refuse would not occur at well sites or other facilities. Drill rigs would be equipped with Tier II or better diesel engines. Vent emissions from stock tanks and natural gas TEG dehydrators would be controlled by routing the emissions to a flare or similar control device which would reduce emissions by 95% or greater. Low bleed pneumatics would be installed on separator dump valves and other controllers. The use of low bleed pneumatics would result in a lower emission of VOCs. During completion, flaring would be limited as much as possible. Production equipment and gathering lines would be installed as soon as possible. Well site telemetry would be utilized as feasible for production operations. Additional site-specific measures may also be employed to avoid or minimize effects to local or regional air quality. These additional measures will be developed and implemented in coordination with the U.S. Environmental Protection Agency, the Utah Department of Air Quality, and other agencies with expertise or jurisdiction as appropriate.</p>
<p>UT-LN-99 Statewide</p>	<p><b>REGIONAL OZONE FORMATION CONTROLS</b> To mitigate any potential impact oil and gas development emissions may have on regional ozone formation, the following Best Management Practices (BMPs) would be required for any development projects: Tier II or better drilling rig engines Stationary internal combustion engine standard of 2g NOx/bhp-hr for engines &lt;300HP and 1g NOx/bhp-hr for engines &gt;300HP Low bleed or no bleed pneumatic pump valves Dehydrator VOC emission controls to +95% efficiency Tank VOC emission controls to +95% efficiency</p>

UT-LN-102 All Offices	<b>AIR QUALITY ANALYSIS</b> The lessee/operator is given notice that prior to project-specific approval, additional air quality analyses may be required to comply with the National Environmental Policy Act, Federal Land Policy Management Act, and/or other applicable laws and regulations. Analyses may include dispersion modeling for deposition and visibility impacts analysis, control equipment determinations, and/or emission inventory development. These analyses may result in the imposition of additional project-specific air quality control measures.
--------------------------	--

Number	Utah's Threatened & Endangered Species Notices
T&E-03 Price VERNAL	<b>ENDANGERED FISH OF THE UPPER COLORADO RIVER DRAINAGE BASIN</b> The Lessee/Operator is given notice that the lands in this parcel contain Critical Habitat for the Colorado River fish (bonytail, humpback chub, Colorado pike minnow, and razorback sucker) listed as endangered under the Endangered Species Act, or these parcels have watersheds that are tributary to designated habitat. Critical habitat was designated for the four endangered Colorado River fishes on March 21, 1994(59 FR 13374-13400). Designated critical habitat for all the endangered fishes includes those portions of the 100-year floodplain that contain primary constituent elements necessary for survival of the species. Avoidance or use restrictions may be placed on portions of the lease. The following avoidance and minimization measures have been designed to ensure activities carried out on the lease are in compliance with the Endangered Species Act. Integration of and adherence to these measures will facilitate review and analysis of any submitted permits under the authority of this lease. Following these measures could reduce the scope of Endangered Species Act, Section 7 consultation at the permit stage. Current avoidance and minimization measures include the following: Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All surveys must be conducted by qualified individual(s). Lease activities will require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures will be evaluated and, if necessary, Section 7 consultation reinitiated. Water production will be managed to ensure maintenance or enhancement of riparian habitat. Avoid loss or disturbance of riparian habitats. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in suitable riparian habitat. Ensure that such directional drilling does not intercept or degrade alluvial aquifers. Conduct watershed analysis for leases in designated critical habitat and overlapping major tributaries in order to determine toxicity risk from permanent facilities. Implement Appendix B (Hydrologic Considerations for Pipeline Crossing Stream Channels, Technical Note 423). Drilling will not occur within 100 year floodplains of rivers or tributaries to rivers that contain listed fish species or critical habitat. In areas adjacent to 100-year flood plains, particularly in systems prone to flash floods, analyze the risk for flash floods to impact facilities, and use closed loop drilling, and pipeline burial or suspension according to Appendix B (Hydrologic Considerations for Pipeline Crossing Stream Channels, Technical Note 423, to minimize the potential for equipment

Number	Utah's Threatened & Endangered Species Notices
	<p>damage and resulting leaks or spills.</p> <p>Water depletions from <i>any</i> portion of the Upper Colorado River drainage basin above Lake Powell are considered to adversely affect or adversely modify the critical habitat of the four resident endangered fish species, and must be evaluated with regard to the criteria described in the Upper Colorado River Endangered Fish Recovery Program. Formal consultation with USFWS is required for all depletions. All depletion amounts must be reported to BLM. Additional measures to avoid or minimize effects to the species may be developed and implemented in consultation with the U.S. Fish and Wildlife Service between the lease sale stage and lease development stage to ensure continued compliance with the ESA.</p>

Number	Utah's Threatened & Endangered Species Notices
T&E-05	<p><b>LISTED PLANT SPECIES</b></p> <p>The Lessee/Operator is given notice that the lands in this parcel contain suitable habitat for federally listed plant species under the Endangered Species Act. The following avoidance and minimization measures have been developed to facilitate review and analysis of any submitted permits under the authority of this lease</p> <p>Site inventories:</p> <ul style="list-style-type: none"> <li>Must be conducted to determine habitat suitability,</li> <li>Are required in known or potential habitat for all areas proposed for surface disturbance prior to initiation of project activities, at a time when the plant can be detected, and during appropriate flowering periods,</li> <li>Documentation should include, but not be limited to individual plant locations and suitable habitat distributions, and</li> <li>All surveys must be conducted by qualified individuals.</li> </ul> <p>Lease activities will require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures will be evaluated and, if necessary, Section 7 consultation reinitiated.</p> <p>Project activities must be designed to avoid direct disturbance to populations and to individual plants:</p> <ul style="list-style-type: none"> <li>Designs will avoid concentrating water flows or sediments into plant occupied habitat.</li> <li>Construction will occur down slope of plants and populations where feasible; if well pads and roads must be sited upslope, buffers of 300 feet minimum between surface disturbances and plants and populations will be incorporated.</li> <li>Where populations occur within 300 ft. of well pads, establish a buffer or fence the individuals or groups of individuals during and post-construction.</li> </ul> <p>Areas for avoidance will be visually identifiable in the field, e.g., flagging, temporary fencing, rebar, etc.</p> <p>For surface pipelines, use a 10 foot buffer from any plant locations:</p> <ul style="list-style-type: none"> <li>If on a slope, use stabilizing construction techniques to ensure the pipelines don't move towards the population.</li> </ul> <p>For riparian/wetland-associated species, e.g. Ute ladies-tresses, avoid loss or disturbance of riparian habitats.</p> <ul style="list-style-type: none"> <li>Ensure that water extraction or disposal practices do not result in change of hydrologic regime.</li> <li>Limit disturbances to and within suitable habitat by staying on designated routes.</li> <li>Limit new access routes created by the project.</li> <li>Place signing to limit ATV travel in sensitive areas.</li> <li>Implement dust abatement practices near occupied plant habitat.</li> <li>All disturbed areas will be re-vegetated with native species comprised of species indigenous to the area.</li> <li>Post construction monitoring for invasive species will be required.</li> <li>Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in plant habitat. Ensure that such directional drilling does not intercept or degrade alluvial aquifers.</li> </ul> <p>Lease activities will require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures will be evaluated and, if necessary, Section 7 consultation reinitiated.</p> <p>Additional measures to avoid or minimize effects to the species may be developed and implemented in consultation with the U.S. Fish and Wildlife Service between the lease sale stage and lease development stage to ensure continued compliance with the Endangered Species Act.</p>

Number	Utah's Threatened & Endangered Species Notices
T&E-06	<p><b>MEXICAN SPOTTED OWL</b></p> <p>The Lessee/Operator is given notice that the lands in this parcel contain suitable habitat for Mexican spotted owl, a federally listed species. The Lessee/Operator is given notice that the lands in this lease contain Designated Critical Habitat for the Mexican spotted owl, a federally listed species. Critical habitat was designated for the Mexican spotted owl on August 31, 2004 (69 FR 53181-53298). Avoidance or use restrictions may be placed on portions of the lease. Application of appropriate measures will depend whether the action is temporary or permanent, and whether it occurs within or outside the owl nesting season. A <u>temporary</u> action is completed prior to the following breeding season leaving no permanent structures and resulting in no permanent habitat loss. A <u>permanent</u> action continues for more than one breeding season and/or causes a loss of owl habitat or displaces owls through disturbances, i.e. creation of a permanent structure.</p> <p>The following avoidance and minimization measures have been designed to ensure activities carried out on the lease are in compliance with the Endangered Species Act. Integration of, and adherence to these measures, will facilitate review and analysis of any submitted permits under the authority of this lease. Following these measures could reduce the scope of Endangered Species Act, Section 7 consultation at the permit stage. Current avoidance and minimization measures include the following:</p> <p>Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All Surveys must be conducted by qualified individual(s).</p> <p>Assess habitat suitability for both nesting and foraging using accepted habitat models in conjunction with field reviews. Apply the conservation measures below if project activities occur within 0.5 mile of suitable owl habitat. Determine potential effects of actions to owls and their habitat.</p> <p>Document type of activity, acreage and location of direct habitat impacts, type and extent of indirect impacts relative to location of suitable owl habitat.</p> <p>Document if action is temporary or permanent.</p> <p>Lease activities will require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures will be evaluated and, if necessary, Section 7 consultation reinitiated.</p> <p>Water production will be managed to ensure maintenance or enhancement of riparian habitat. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in canyon habitat suitable for Mexican spotted owl nesting.</p> <p>For all temporary actions that may impact owls or suitable habitat:</p> <p>If the action occurs entirely outside of the owl breeding season (March 1 – August 31), and leaves no permanent structure or permanent habitat disturbance, action can proceed without an occupancy survey.</p> <p>If action will occur during a breeding season, survey for owls prior to commencing activity. If owls are found, activity must be delayed until outside of the breeding season.</p> <p>Rehabilitate access routes created by the project through such means as raking out scars, re-vegetation, gating access points, etc.</p> <p>For all permanent actions that may impact owls or suitable habitat:</p> <p>Survey two consecutive years for owls according to accepted protocol prior to commencing activities.</p> <p>If owls are found, no actions will occur within 0.5 mile of identified nest site. If nest site is unknown, no activity will occur within the designated Protected Activity Center (PAC).</p> <p>Avoid drilling and permanent structures within 0.5 mi of suitable habitat unless surveyed and not occupied.</p>

Number	Utah's Threatened & Endangered Species Notices
	<p>Reduce noise emissions (e.g., use hospital-grade mufflers) to 45 dBA at 0.5 mile from suitable habitat, including canyon rims. Placement of permanent noise-generating facilities should be determined by a noise analysis to ensure noise does not encroach upon a 0.5 mile buffer for suitable habitat, including canyon rims.</p> <p>Limit disturbances to and within suitable habitat by staying on approved routes.</p> <p>Limit new access routes created by the project.</p> <p>Additional measures to avoid or minimize effects to the species may be developed and implemented in consultation with the U.S. Fish and Wildlife Service between the lease sale stage and lease development stage to ensure continued compliance with the Endangered Species Act.</p>
T&E-14	<p><b>LAST CHANCE TOWNSENDIA (<i>TOWNSENDIA APRICA</i>)</b></p> <p>In order to minimize effects to the federally threatened Last Chance Townsendia, the Bureau of Land Management (BLM), in coordination with the U.S. Fish and Wildlife Service (Service), has developed the following avoidance and minimization measures.</p> <p>Implementation of these measures will help ensure the activities carried out during oil and gas development (including but not limited to drilling, production, and maintenance operations) are in compliance with the endangered Species Act (ESA). For the purposes of this document, the following terms are so defined: <i>Potential habitat</i> is defined as areas which satisfy the broad criteria of the species habitat description; usually determined by preliminary, in-house assessment. <i>Suitable habitat</i> is defined as areas which contain or exhibit the specific components or constituents necessary for plant persistence; determined by field inspection and/or surveys; may or may not contain Last Chance Townsendia; habitat descriptions can be found in Federal Register Notice and species recovery plan links at &lt;<a href="http://www.fws.gov/endangered/wildlife.html">http://www.fws.gov/endangered/wildlife.html</a>&gt;. <i>Occupied habitat</i> is defined as areas currently or historically known to support Last Chance Townsendia; synonymous with "known habitat." The following avoidance and minimization measures should be included in the Plan of Development:</p> <p>Pre-project habitat assessments will be completed across 100% of the project disturbance area within potential habitat<sup>1</sup> prior to any ground disturbing activities (including ATV use) to determine if suitable Last Chance Townsendia habitat is present.</p> <p>Site inventories will be conducted within suitable habitat to determine occupancy. Where standard surveys are technically infeasible and otherwise hazardous due to topography, slope, etc., suitable habitat will be assessed and mapped for avoidance (hereafter, "avoidance areas"); in such cases, in general, 300' buffers will be maintained between surface disturbance and avoidance areas. However, site specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat. Where conditions allow, inventories:</p> <p>Must be conducted by qualified individuals(s) and according to BLM and Service accept survey protocols,</p> <p>Will be conducted in suitable and occupied habitat for all areas proposed for surface disturbance prior to initiation of project activities and within the same growing season, at a time when the plant can be detected (usually April 15<sup>th</sup> to June 5<sup>th</sup>, however, surveyors should verify that the plant is flowering by contacting a BLM or FWS botanist or demonstrating that the nearest known population is in flower),</p> <p>Will occur within 300' from the centerline of the proposed right-of-way for surface pipelines or roads; and within 300' from the perimeter of disturbance for the proposed well pad including the well pad,</p> <p>Will include, but not be limited to, plant species lists and habitat characteristics, and</p> <p>Will be valid until April 15<sup>th</sup> the following year.</p> <p>Design project infrastructure to minimize impacts within suitable habitat:</p>



Number	Utah's Threatened & Endangered Species Notices
	<p>Where standard surveys are technically infeasible, infrastructure and activities will avoid all suitable habitat (avoidance areas) and incorporate 300' buffers, in general; however, site specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat,</p> <p>Reduce well pad size to the minimum needed, without compromising safety,</p> <p>Where technically and economically feasible, use directional drilling or multiple wells from the same pad,</p> <p>Limit new access routes created by the project,</p> <p>Roads and utilities should share common right-of-ways where possible,</p> <p>Reduce the width of right-of-ways and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat,</p> <p>Place signing to limit off-road travel in sensitive areas, and</p> <p>Stay on designated routes and other cleared/approved areas,</p> <p>All disturbed areas will be re-vegetated with native species comprised of species indigenous to the area and non-native species that are not likely to invade other areas.</p> <p>Within occupied habitat, project infrastructure will be designed to avoid direct disturbance and minimize indirect impacts to populations and to individual plants:</p> <p>Follow the above recommendations (#3) for project design within suitable habitats,</p> <p>To avoid water flow and/or sedimentation into occupied habitat and avoidance areas, silt fences, hay bales, and similar structures or practices will be incorporated into the project design; appropriate placement of fill is encouraged,</p> <p>Construction of roads will occur such that the edge of the right of way is at least 300' from any plant and 300' from avoidance areas,</p> <p>Roads will be graveled with occupied habitat; the operator is encouraged to apply water for dust abatement to such areas from April 15<sup>th</sup> to June 5<sup>th</sup> (flowering period); dust abatement applications will be comprised of water only,</p> <p>The edge of the well pad should be located at least 300' away from plants and avoidance areas, in general; however, site specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat,</p> <p>Surface pipelines will be laid such that a 300' buffer exists between the edge of the right of way and plants and 300' between the edge of right of way and avoidance areas; use stabilizing and anchoring techniques when the pipeline crossed suitable habitat to ensure pipelines don't move towards the population; site specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat,</p> <p>Construction activities will not occur from April 15<sup>th</sup> through June 5<sup>th</sup> within occupied habitat,</p> <p>Before and during construction, areas for avoidance should be visually identifiable in the field, e.g., flagging temporary fencing, rebar, etc.,</p> <p>Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat, and</p> <p>Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible.</p> <p>Occupied Last Chance Townsendia habitats within 300' of the edge of the surface pipelines' right-of-ways, 300' of the edge of the roads' right-of-ways, and 300' from the edge of the well pad shall be monitored for a period of three years after ground disturbing activities.</p> <p>Monitoring will include annual plant surveys to determine plant and habitat impacts relative to project facilities. Annual reports shall be provided to the BLM and the Service. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and the Service.</p>

Number	Utah's Threatened & Endangered Species Notices
	<p>Re-initiation of section 7 consultation with the Service will be sought immediately if any loss of plants or occupied habitat for the Last Chance Townsendia is anticipated as a result of project activities. Additional site-specific measures may also be employed to avoid or minimize effects to the species. These additional measures will be developed and implemented in consultation with the U.S. Fish and Wildlife Service to ensure continued compliance with the ESA.</p>
T&E-15	<p><b>WRIGHT FISHHOOK CACTUS (<i>SCLEROCACTUS WRIGHTIAE</i>)</b>  In order to minimize effects to the federally threatened Wright Fishhook Cactus, the Bureau of Land Management (BLM), in coordination with the U.S. Fish and Wildlife Service (Service), has developed the following avoidance and minimization measures. Implementation of these measures will help ensure the activities carried out during oil and gas development (including but not limited to drilling, production, and maintenance operations) are in compliance with the endangered Species Act (ESA). For the purposes of this document, the following terms are so defined: <i>Potential habitat</i> is defined as areas which satisfy the broad criteria of the species habitat description; usually determined by preliminary, in-house assessment. <i>Suitable habitat</i> is defined as areas which contain or exhibit the specific components or constituents necessary for plant persistence; determined by field inspection and/or surveys; may or may not contain Wright Fishhook Cactus; habitat descriptions can be found in Federal Register Notice and species recovery plan links at &lt;<a href="http://www.fws.gov/endangered/wildlife.html">http://www.fws.gov/endangered/wildlife.html</a>&gt;. <i>Occupied habitat</i> is defined as areas currently or historically known to support Wright Fishhook Cactus; synonymous with "known habitat." The following avoidance and minimization measures should be included in the Plan of Development:</p> <p>Pre-project habitat assessments will be completed across 100% of the project disturbance area within potential habitat<sup>1</sup> prior to any ground disturbing activities (including ATV use) to determine if suitable Wright Fishhook Cactus habitat is present.</p> <p>Site inventories will be conducted within suitable habitat to determine occupancy. Where standard surveys are technically infeasible and otherwise hazardous due to topography, slope, etc. suitable habitat will be assessed and mapped for avoidance (hereafter, "avoidance areas"); in such cases, in general, 300' buffers will be maintained between surface disturbance and avoidance areas. However, site specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat. Where conditions allow, inventories:</p> <ul style="list-style-type: none"> <li>Must be conducted by qualified individuals(s) and according to BLM and Service accept survey protocols,</li> <li>Will be conducted in suitable and occupied habitat for all areas proposed for surface disturbance prior to initiation of project activities and within the same growing season, at a time when the plant can be detected (usually April 15<sup>th</sup> to June 5<sup>th</sup>, however, surveyors should verify that the plant is flowering by contacting a BLM or FWS botanist or demonstrating that the nearest known population is in flower),</li> <li>Will occur within 300' from the centerline of the proposed right-of-way for surface pipelines or roads; and within 300' from the perimeter of disturbance for the proposed well pad including the well pad,</li> <li>Will include, but not be limited to, plant species lists and habitat characteristics, and</li> <li>Will be valid until April 15<sup>th</sup> the following year.</li> </ul> <p>Design project infrastructure to minimize impacts within suitable habitat:  Where standard surveys are technically infeasible, infrastructure and activities will avoid all suitable habitat (avoidance areas) and incorporate 300' buffers, in general; however, site specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat,</p>

Number	Utah's Threatened & Endangered Species Notices
	<p>Reduce well pad size to the minimum needed, without compromising safety, Where technically and economically feasible, use directional drilling or multiple wells from the same pad, Limit new access routes created by the project, Roads and utilities should share common right-of-ways where possible, Reduce the width of right-of-ways and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat, Place signing to limit off-road travel in sensitive areas, and Stay on designated routes and other cleared/approved areas, All disturbed areas will be revegetated with native species comprised of species indigenous to the area and non-native species that are not likely to invade other areas. Within occupied habitat, project infrastructure will be designed to avoid direct disturbance and minimize indirect impacts to populations and to individual plants: Follow the above recommendations (#3) for project design within suitable habitats, To avoid water flow and/or sedimentation into occupied habitat and avoidance areas, silt fences, hay bales, and similar structures or practices will be incorporated into the project design; appropriate placement of fill is encouraged, Construction of roads will occur such that the edge of the right of way is at least 300' from any plant and 300' from avoidance areas, Roads will be graveled with occupied habitat; the operator is encouraged to apply water for dust abatement to such areas from April 15<sup>th</sup> to June 5<sup>th</sup> (flowering period); dust abatement applications will be comprised of water only, The edge of the well pad should be located at least 300' away from plants and avoidance areas, in general; however, site specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat, Surface pipelines will be laid such that a 300' buffer exists between the edge of the right of way and plants and 300' between the edge of right of way and avoidance areas; use stabilizing and anchoring techniques when the pipeline crossed suitable habitat to ensure pipelines don't move towards the population; site specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat, Construction activities will not occur from April 15<sup>th</sup> through June 5<sup>th</sup> within occupied habitat, Before and during construction, areas for avoidance should be visually identifiable in the field, e.g., flagging temporary fencing, rebar, etc., Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat, and Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible. Occupied Wright Fishhook Cactus habitats within 300' of the edge of the surface pipelines' right-of-ways, 300' of the edge of the roads' right-of-ways, and 300' from the edge of the well pad shall be monitored for a period of three years after ground disturbing activities. Monitoring will include annual plant surveys to determine plant and habitat impacts relative to project facilities. Annual reports shall be provided to the BLM and the Service. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and the Service. Re-initiation of section 7 consultation with the Service will be sought immediately if any loss of plants or occupied habitat for the Wright Fishhook Cactus is anticipated as a result of project activities. Additional site-specific measures may also be employed to avoid or minimize effects to the species. These additional measures will be developed and</p>

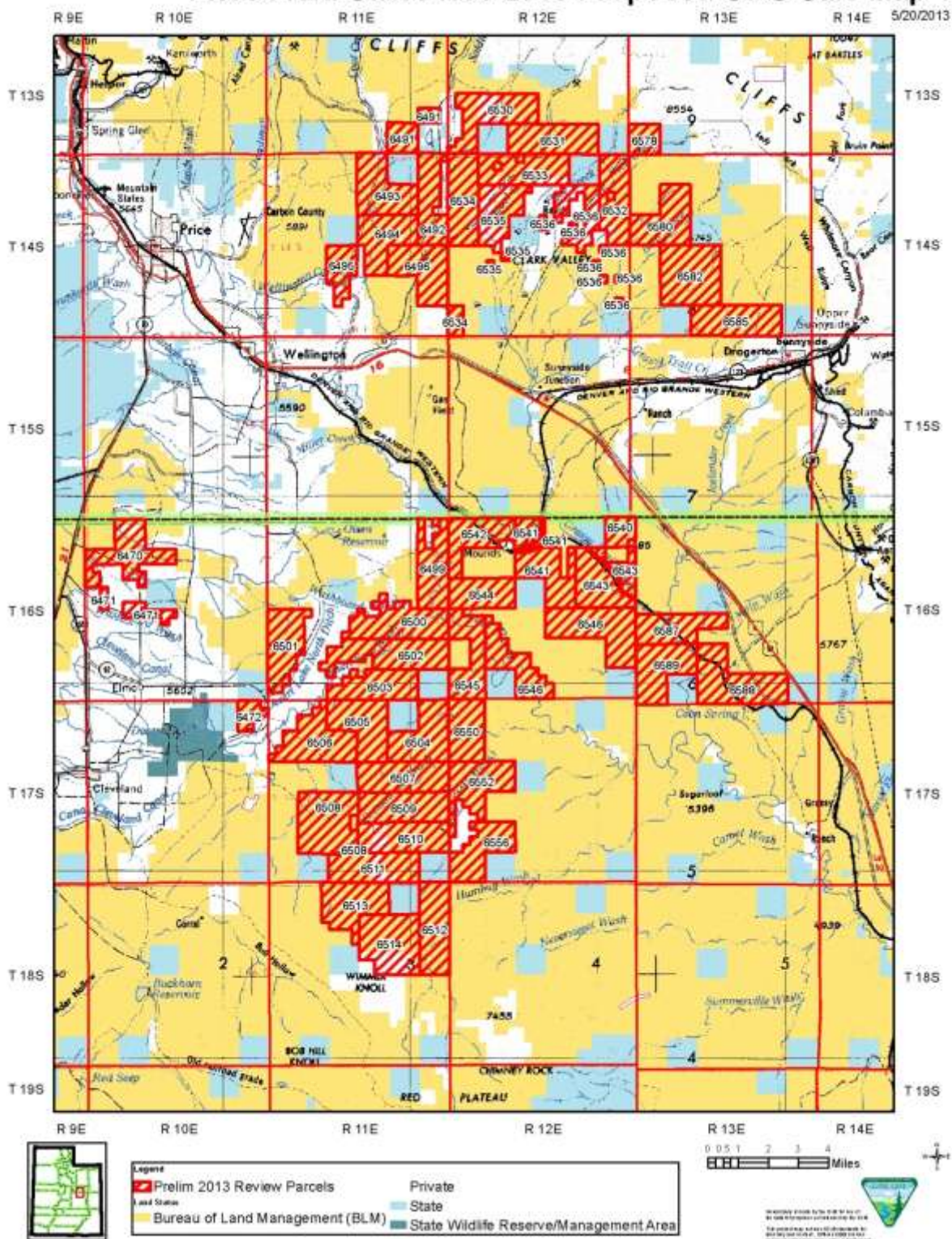
Number	Utah's Threatened & Endangered Species Notices
	implemented in consultation with the U.S. Fish and Wildlife Service to ensure continued compliance with the ESA.
T&E-17	<p><b>SAN RAFAEL CACTUS (<i>PEDIOCACTUS DESPAINII</i>)</b>  In order to minimize effects to the federally threatened San Rafael Cactus, the Bureau of Land Management (BLM), in coordination with the U.S. Fish and Wildlife Service (Service), has developed the following avoidance and minimization measures. Implementation of these measures will help ensure the activities carried out during oil and gas development (including but not limited to drilling, production, and maintenance operations) are in compliance with the endangered Species Act (ESA). For the purposes of this document, the following terms are so defined: <i>Potential habitat</i> is defined as areas which satisfy the broad criteria of the species habitat description; usually determined by preliminary, in-house assessment. <i>Suitable habitat</i> is defined as areas which contain or exhibit the specific components or constituents necessary for plant persistence; determined by field inspection and/or surveys; may or may not contain San Rafael Cactus; habitat descriptions can be found in Federal Register Notice and species recovery plan links at &lt;<a href="http://www.fws.gov/endangered/wildlife.html">http://www.fws.gov/endangered/wildlife.html</a>&gt;. <i>Occupied habitat</i> is defined as areas currently or historically known to support San Rafael Cactus; synonymous with "known habitat." The following avoidance and minimization measures should be included in the Plan of Development:</p> <p>Pre-project habitat assessments will be completed across 100% of the project disturbance area within potential habitat<sup>1</sup> prior to any ground disturbing activities (including ATV use) to determine if suitable San Rafael Cactus habitat is present.</p> <p>Site inventories will be conducted within suitable habitat to determine occupancy. Where standard surveys are technically infeasible and otherwise hazardous due to topography, slope, etc. suitable habitat will be assessed and mapped for avoidance (hereafter, "avoidance areas"); in such cases, in general, 300' buffers will be maintained between surface disturbance and avoidance areas. However, site specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat. Where conditions allow, inventories:</p> <ul style="list-style-type: none"> <li>Must be conducted by qualified individuals(s) and according to BLM and Service accept survey protocols,</li> <li>Will be conducted in suitable and occupied habitat for all areas proposed for surface disturbance prior to initiation of project activities and within the same growing season, at a time when the plant can be detected (usually April 15<sup>th</sup> to June 5<sup>th</sup>, however, surveyors should verify that the plant is flowering by contacting a BLM or FWS botanist or demonstrating that the nearest known population is in flower),</li> <li>Will occur within 300' from the centerline of the proposed right-of-way for surface pipelines or roads; and within 300' from the perimeter of disturbance for the proposed well pad including the well pad,</li> <li>Will include, but not be limited to, plant species lists and habitat characteristics, and</li> <li>Will be valid until April 15<sup>th</sup> the following year.</li> </ul> <p>Design project infrastructure to minimize impacts within suitable habitat:</p> <ul style="list-style-type: none"> <li>Where standard surveys are technically infeasible, infrastructure and activities will avoid all suitable habitat (voidance areas) and incorporate 300' buffers, in general; however, site specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat,</li> <li>Reduce well pad size to the minimum needed, without compromising safety,</li> <li>Where technically and economically feasible, use directional drilling or multiple wells from the same pad,</li> <li>Limit new access routes created by the project,</li> <li>Roads and utilities should share common right-of-ways where possible,</li> </ul>

Number	Utah's Threatened & Endangered Species Notices
	<p>Reduce the width of right-of-ways and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat,</p> <p>Place signing to limit off-road travel in sensitive areas, and</p> <p>Stay on designated routes and other cleared/approved areas,</p> <p>All disturbed areas will be re-vegetated with native species comprised of species indigenous to the area and non-native species that are not likely to invade other areas.</p> <p>Within occupied habitat, project infrastructure will be designed to avoid direct disturbance and minimize indirect impacts to populations and to individual plants:</p> <p>Follow the above recommendations (#3) for project design within suitable habitats,</p> <p>To avoid water flow and/or sedimentation into occupied habitat and avoidance areas, silt fences, hay bales, and similar structures or practices will be incorporated into the project design; appropriate placement of fill is encouraged,</p> <p>Construction of roads will occur such that the edge of the right of way is at least 300' from any plant and 300' from avoidance areas,</p> <p>Roads will be graveled with occupied habitat; the operator is encouraged to apply water for dust abatement to such areas from April 15<sup>th</sup> to June 5<sup>th</sup> (flowering period); dust abatement applications will be comprised of water only,</p> <p>The edge of the well pad should be located at least 300' away from plants and avoidance areas, in general; however, site specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat,</p> <p>Surface pipelines will be laid such that a 300' buffer exists between the edge of the right of way and plants and 300' between the edge of right of way and avoidance areas; use stabilizing and anchoring techniques when the pipeline crossed suitable habitat to ensure pipelines don't move towards the population; site specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat,</p> <p>Construction activities will not occur from April 15<sup>th</sup> through June 5<sup>th</sup> within occupied habitat,</p> <p>Before and during construction, areas for avoidance should be visually identifiable in the field, e.g., flagging temporary fencing, rebar, etc.,</p> <p>Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat, and</p> <p>Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible.</p> <p>Occupied San Rafael Cactus habitats within 300' of the edge of the surface pipelines' right-of-ways, 300' of the edge of the roads' right-of-ways, and 300' from the edge of the well pad shall be monitored for a period of three years after ground disturbing activities. Monitoring will include annual plant surveys to determine plant and habitat impacts relative to project facilities. Annual reports shall be provided to the BLM and the Service. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and the Service.</p> <p>Re-initiation of section 7 consultation with the Service will be sought immediately if any loss of plants or occupied habitat for the San Rafael Cactus is anticipated as a result of project activities. Additional site-specific measures may also be employed to avoid or minimize effects to the species. These additional measures will be developed and implemented in consultation with the U.S. Fish and Wildlife Service to ensure continued compliance with the ESA.</p>

## Appendix B – Maps

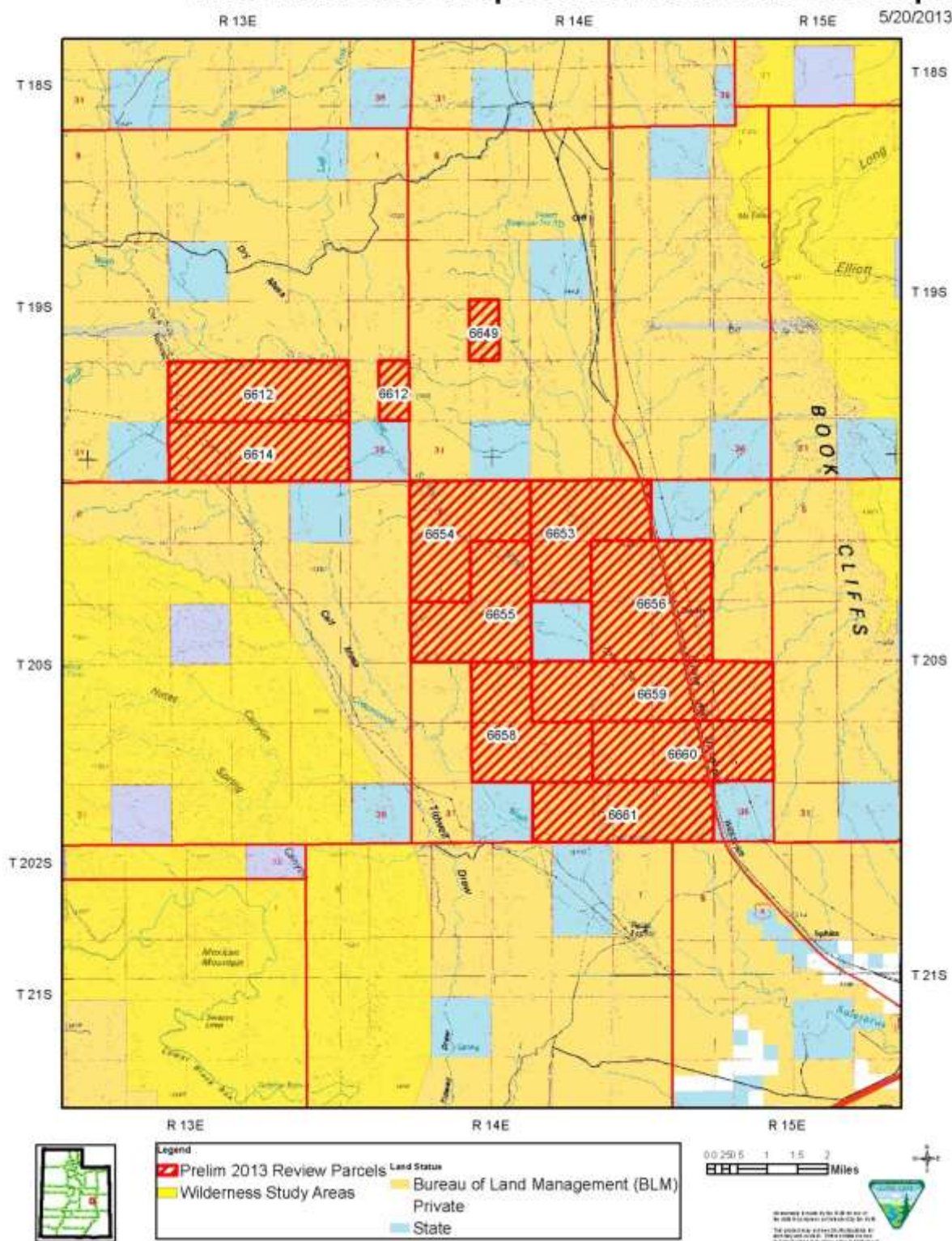


# Price Field Office Nov 2013 Proposed O&G Sale Map 1



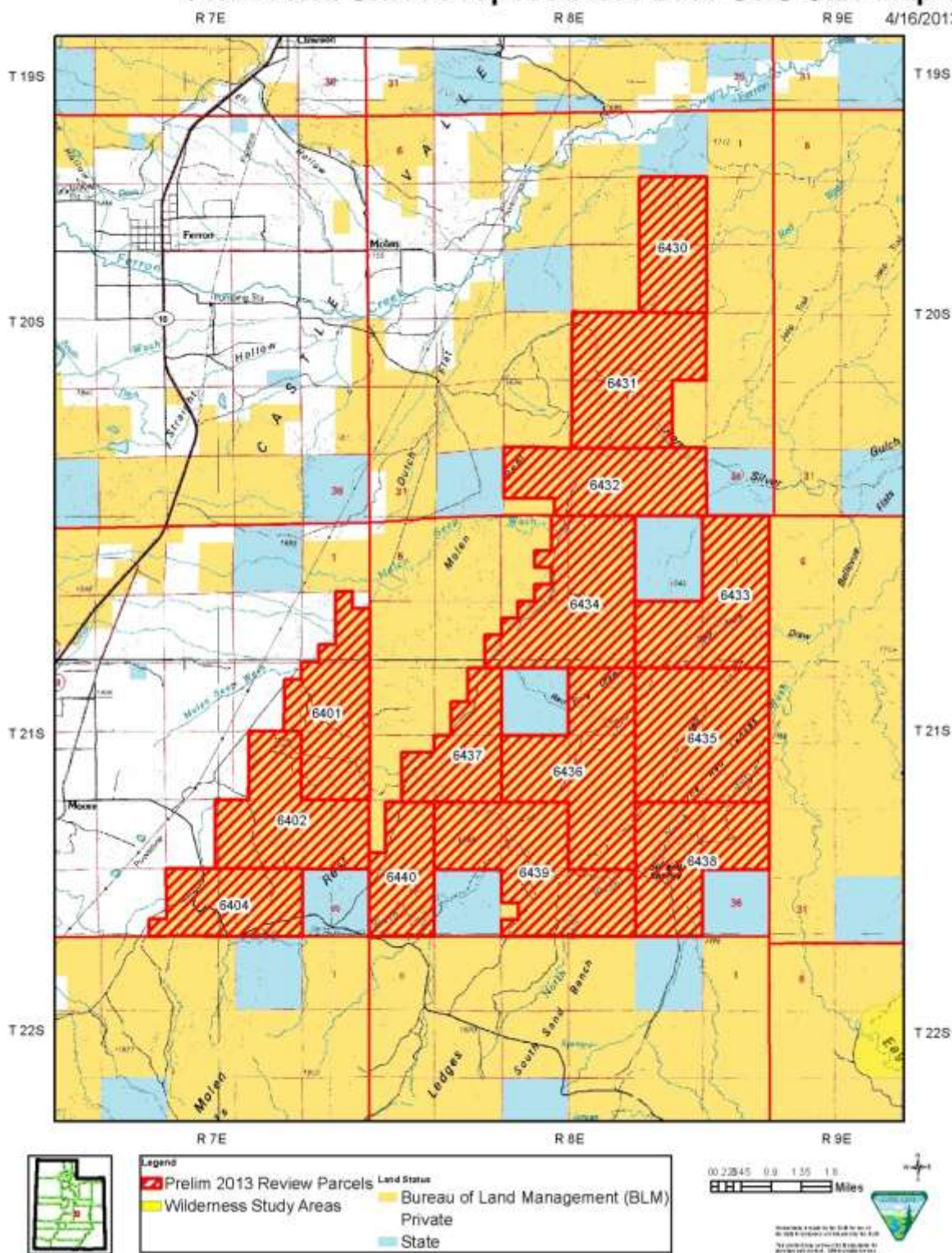


## Price Field Office Proposed Nov 2013 O&G Sale Map 2



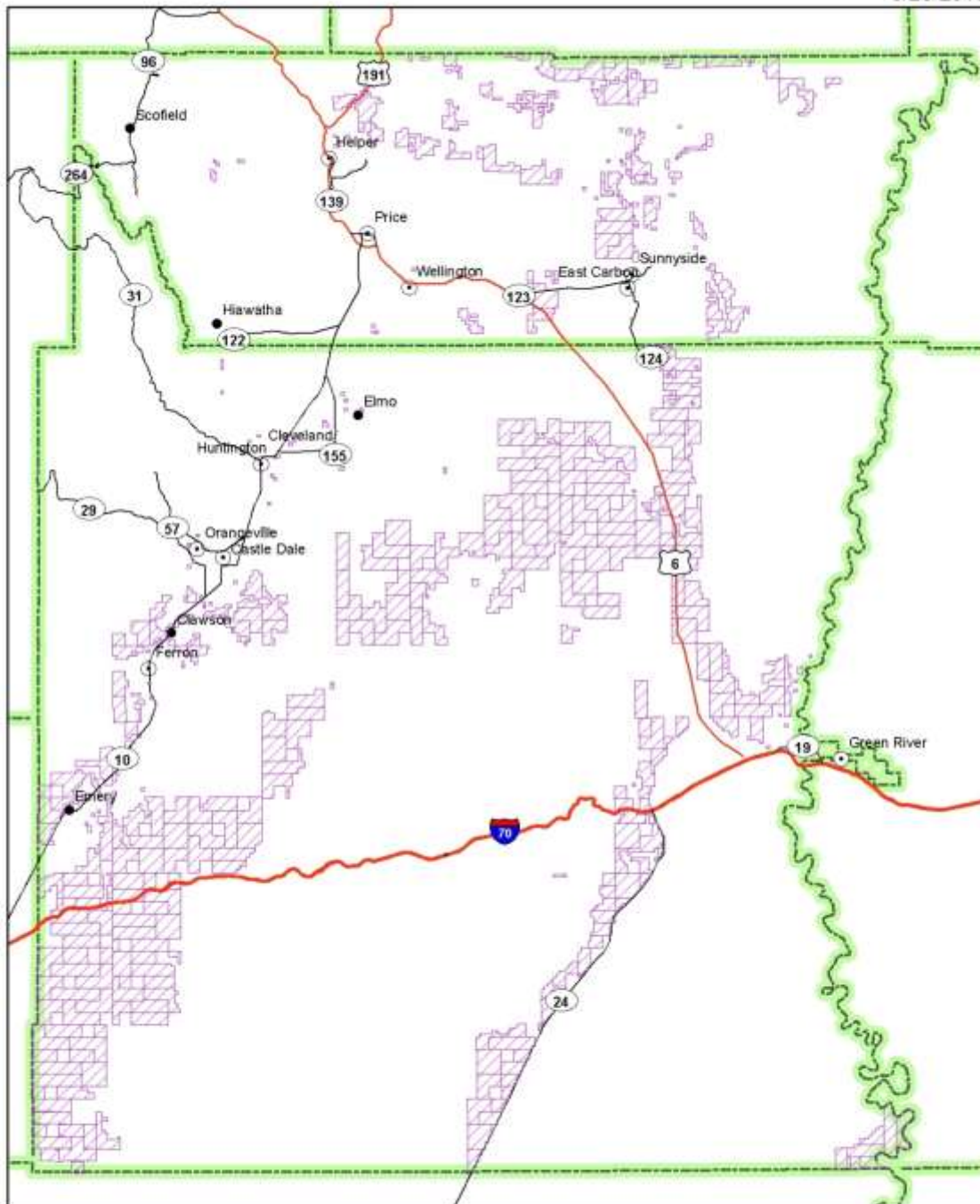


# Price Field Office Proposed Nov 2013 O&G Sale Map 3




# Preliminary Parcels Not Included in Nov 2013 OG Sale Map 4

5/20/2013



## Legend

 Preliminary Parcels Not Included

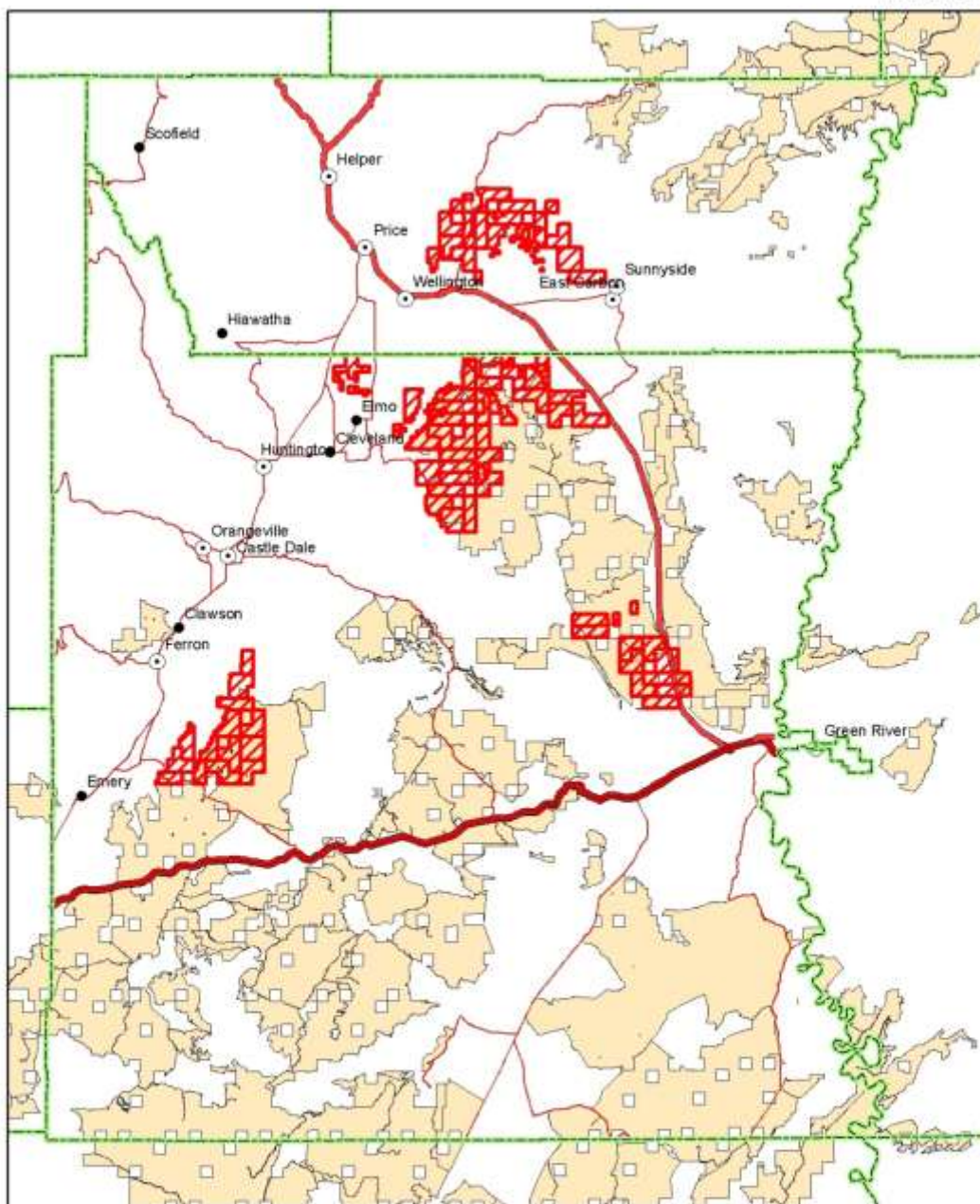
0 1 2 3 5 7.5 10  
Miles



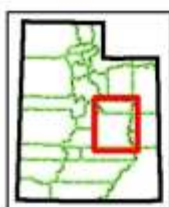


# WC Non-WSA / 2013 OG Sale Map 5 May 20, 2013

BLM



PRICE FIELD OFFICE



Legend	
	Prelim 2013 Review Parcels
<b>UT WC Value</b>	
	Wilderness Characteristics

No warranty is made by the BLM for use of the data for purposes not intended by the BLM.

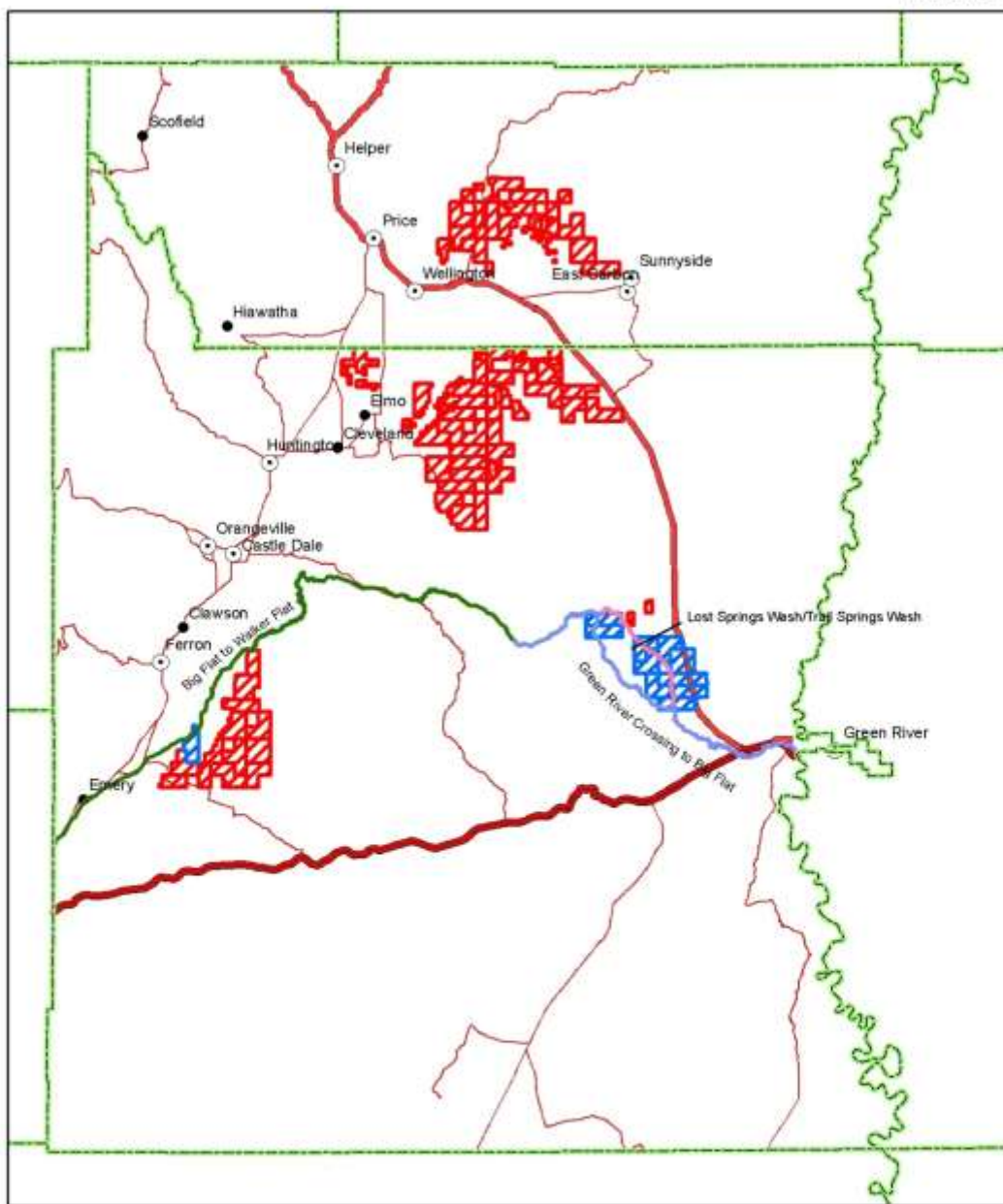
This product may not meet BLM standards for accuracy and content. Different data sources and input scales may cause some misalignment of data layers.



# Old Spanish Trail / 2013 OG Sale Map 6

May 20, 2013

BLM

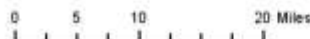


PRICE FIELD OFFICE



**Legend**

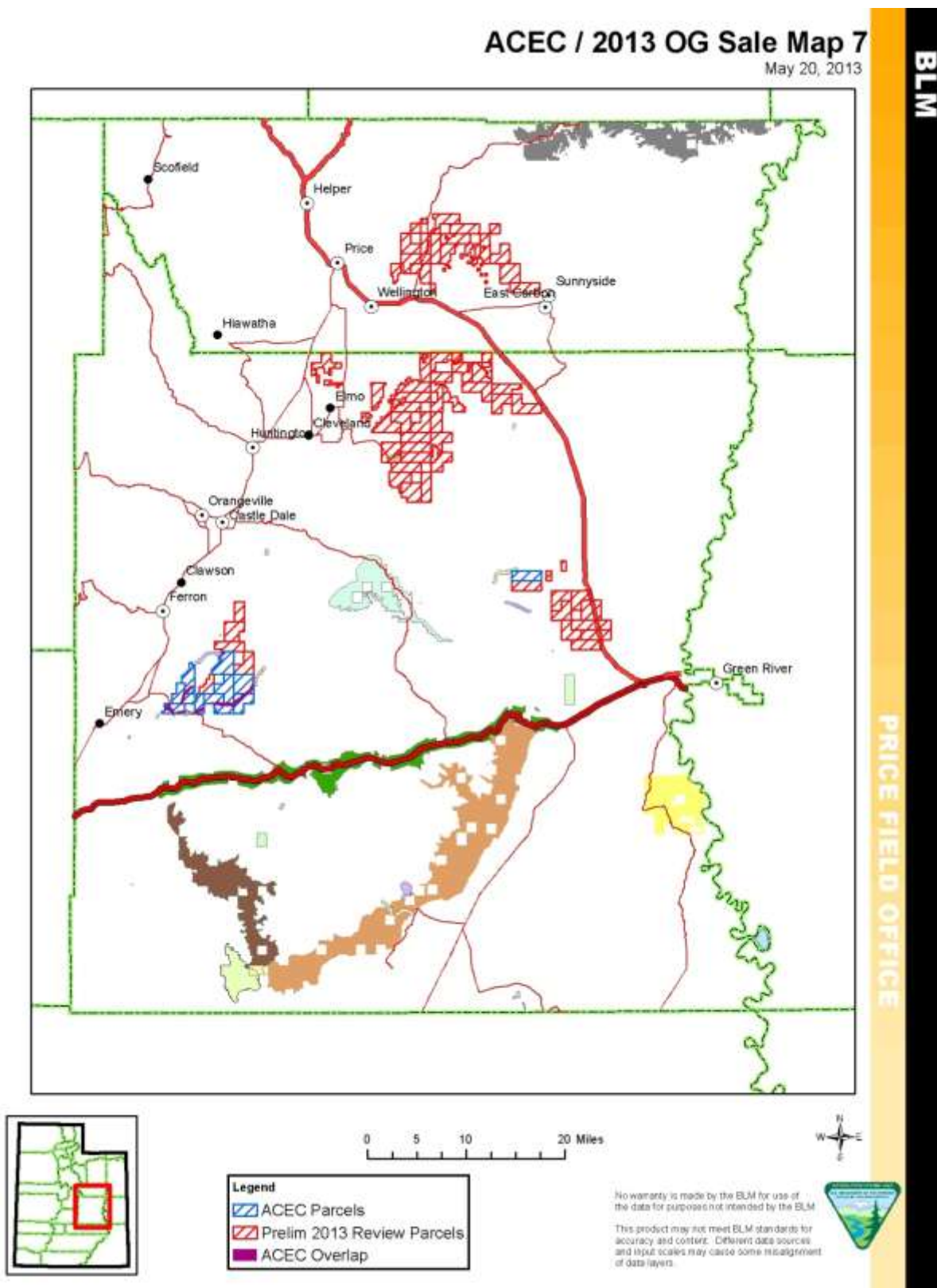
- Spanish Trail Parcels
- Prelim 2013 Review Parcels
- Old Spanish Trail**
- Big Flat to Walker Flat
- Green River Crossing to Big Flat
- Lost Springs Wash/Trail Springs Wash



No warranty is made by the BLM for use of the data for purposes not intended by the BLM.

This product may not meet BLM standards for accuracy and content. Different data sources and input scales may cause some misalignment of data layers.



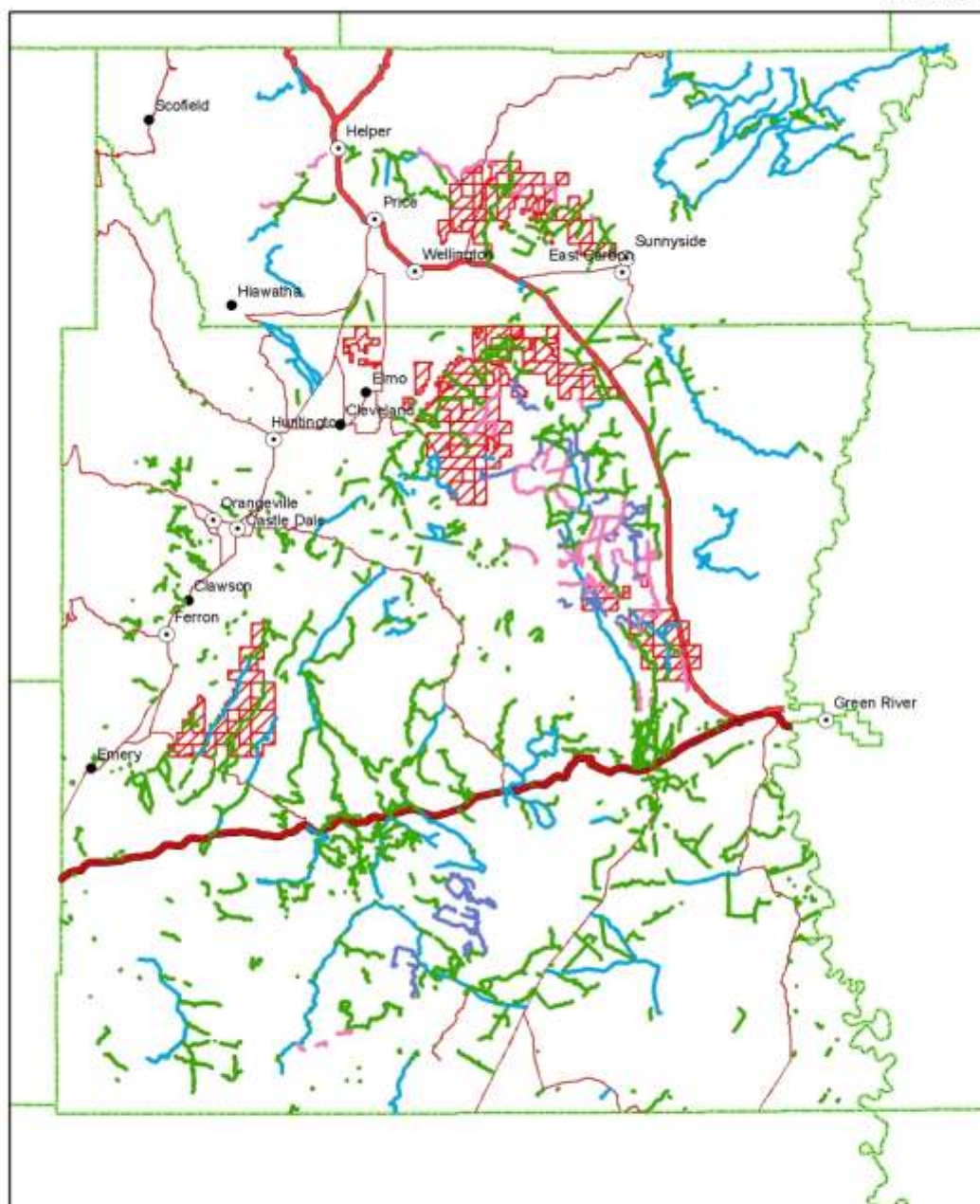




# Designated Routes & FAMS / 2013 OG Sale Map 8

May 20, 2013

BLM



PRICE FIELD OFFICE



0 5 10 20 Miles

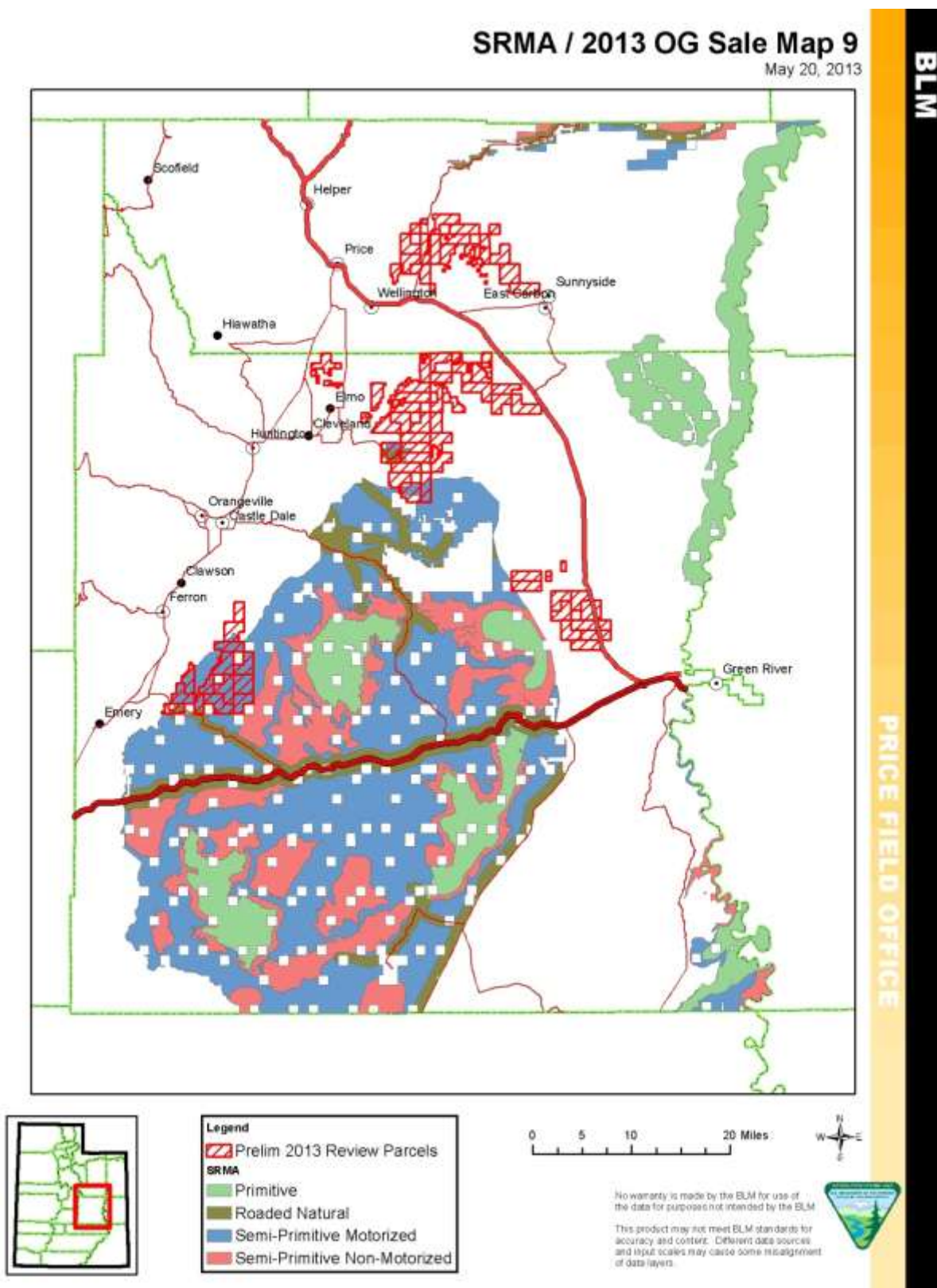
## Legend

- |  |                            |  |                   |
|--|----------------------------|--|-------------------|
|  | Prelim 2013 Review Parcels |  | Designated Routes |
|  | Price Roads FAMS           |  | ATVs, Motorcycles |
|  |                            |  | All Vehicles      |
|  |                            |  | Motorcycles       |



No warranty is made by the BLM for use of the data for purposes not intended by the BLM.

This product may not meet BLM standards for accuracy and content. Different data sources and input scales may cause some misalignment of data layers.

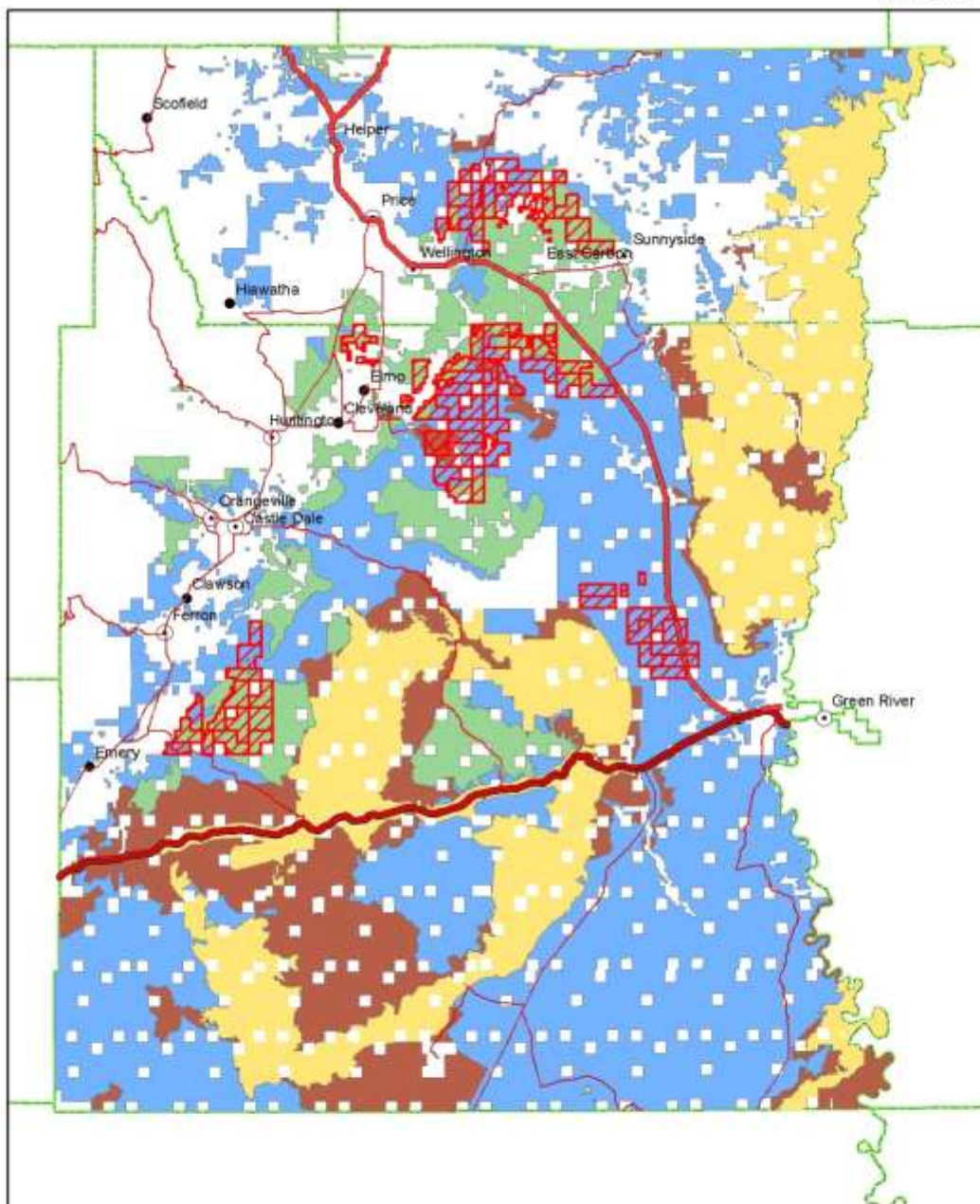




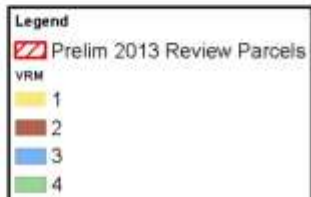
# VRM / 2013 OG Sale Map 10

May 20, 2013

BLM



PRICE FIELD OFFICE



No warranty is made by the BLM for use of the data for purposes not intended by the BLM.

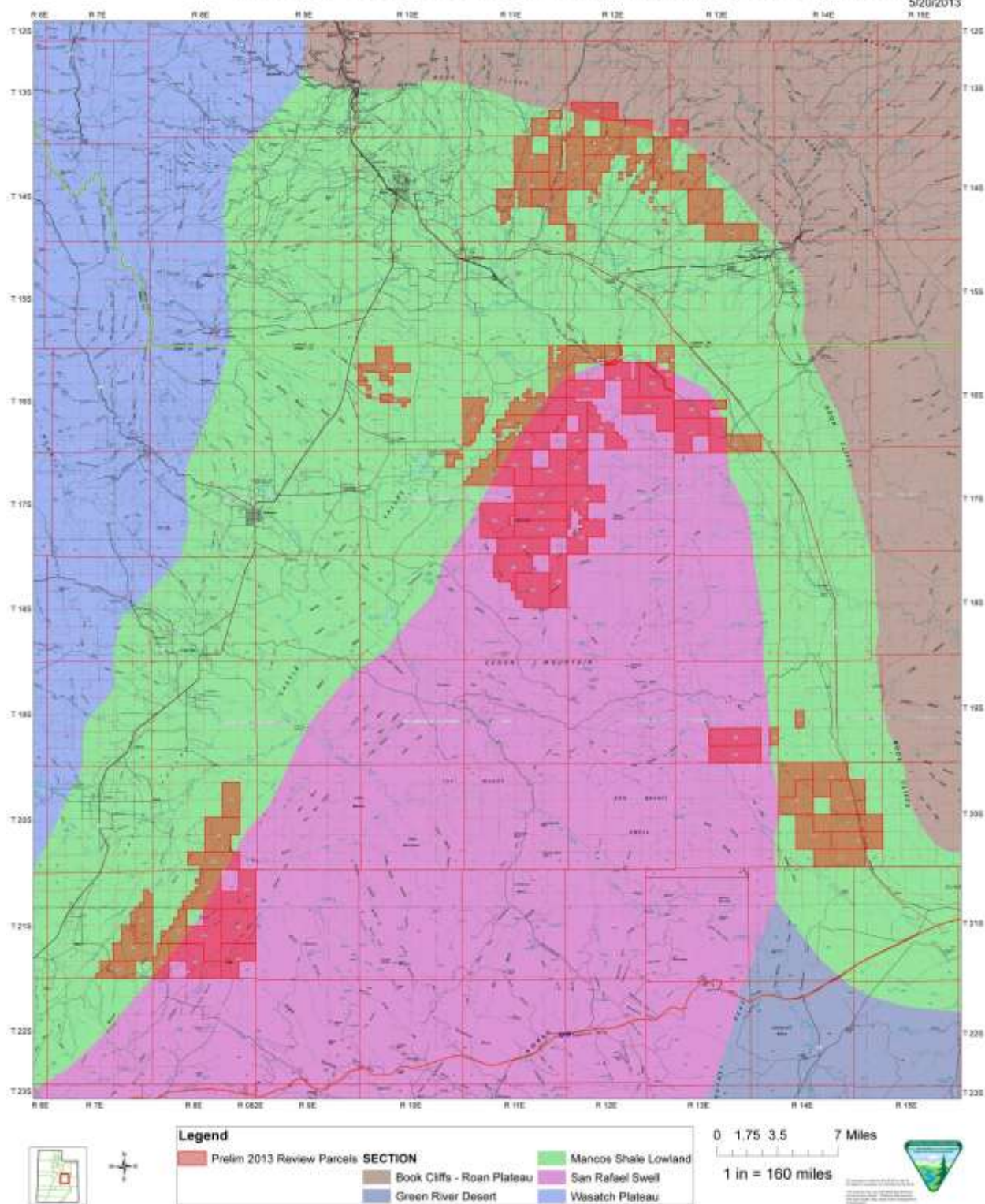
This product may not meet BLM standards for accuracy and content. Different data sources and input scales may cause some misalignment of data layers.





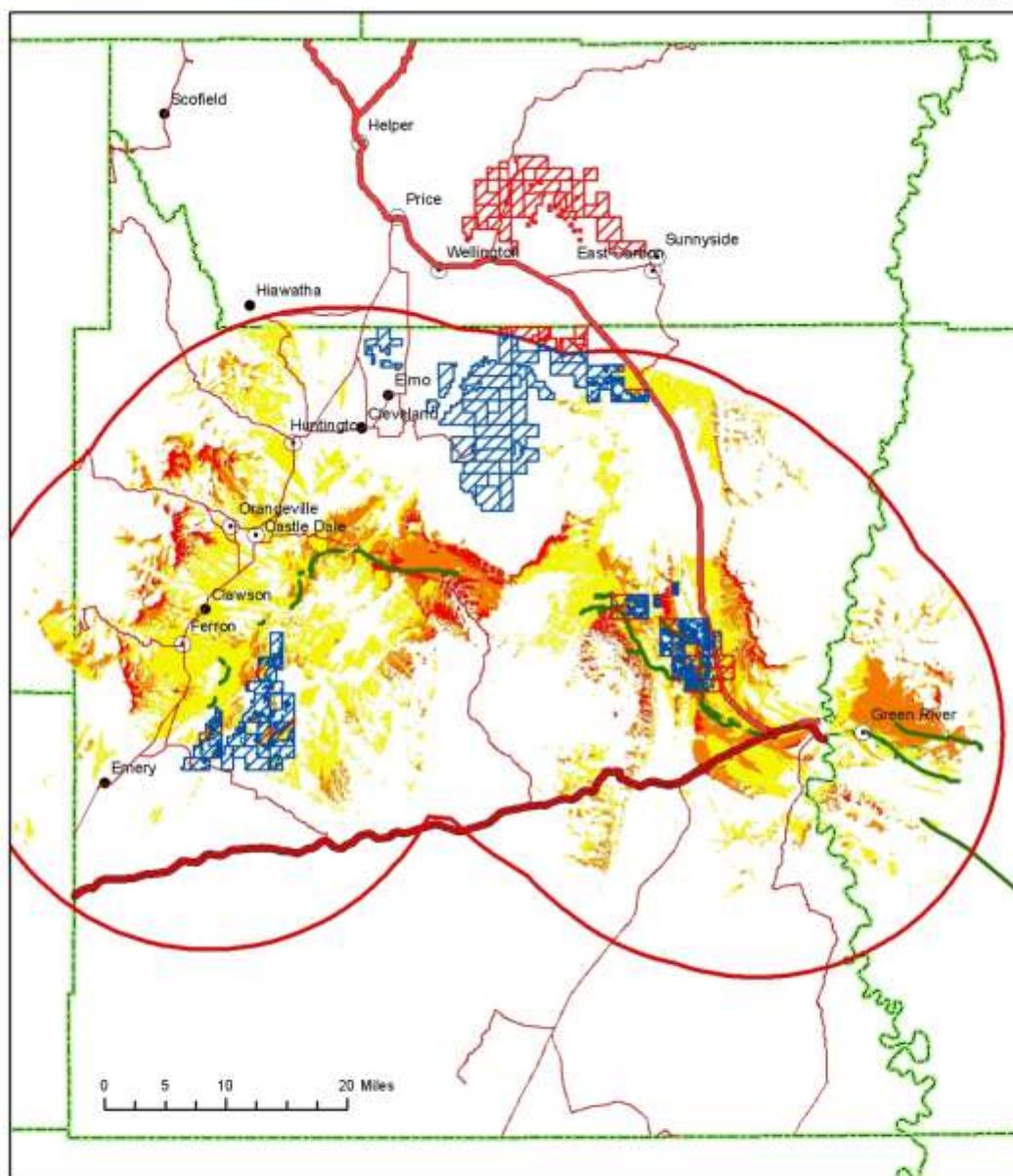
# Nov 2013 O&G Sale Parcels : Physiographic Subdivisions Map 11

5/20/2013



# Spanish Trail Viewshed/ 2013 OG Sale Map 12

June 13, 2013



## Legend

- |   |                                       |
|---|---------------------------------------|
| Areas of Parcels Not Visible from Trail | <b>20ft Elevation Viewshed</b>        |
| Visible Portions of Parcels from Trail  | Visible from 1-11 Observation Points  |
| 20 Mile Buffer from Trail               | Visible from 11-29 Observation Points |
| Utah Old Spanish Trail Traces           | Visible from 29-98 Observation Points |

Explanation: Any point within the yellow category would be visible between 1-11 times from the observation points along the Old Spanish Trail. Orange would be visible 11-29 times and red 29-98 times. White areas are not visible from any of the observation points. The viewshed data was obtained AECOM.

No warranty is made by the BLM for use of the data for purposes not intended by the BLM.

This product may not meet BLM standards for accuracy and context. Different data sources and input scales may cause some misalignment of data layers.

BLM

PRICE FIELD OFFICE





## Appendix C – Interdisciplinary Team Checklist

**INTERDISCIPLINARY TEAM ANALYSIS RECORD CHECKLIST**

Project Title: November 2013 Competitive Oil and Gas Lease Sale

NEPA Log Number: DOI-BLM-UT-G021-2013-0021-EA

File/Serial Number: Not Applicable

Project Leaders: Don Stephens and Anita Jones

Determination of STAFF:

NP = not present in the area impacted by the proposed or alternative actions

NI = present, but not affected to a degree that detailed analysis is required

PI = present with potential for significant impact analyzed in detail in the EA; or identified in a DNA as requiring further analysis

NC = (DNAs only) actions and impacts not changed from those disclosed in the existing NEPA documents cited in Section D of the DNA form.

Determination	Resource	Rationale for Determination	Signature	Date
RESOURCES AND ISSUES CONSIDERED (INCLUDES SUPPLEMENTAL AUTHORITIES APPENDIX 1 H-1790-1)				
PI	Air Quality	<p>Emissions from earth-moving equipment, vehicle traffic, drilling and completion activities, separators, oil storage tanks, dehydration units, and daily tailpipe and fugitive dust emissions could adversely affect air quality. Application of Stipulation UT-S-01 and Lease Notices UT-LN-99 and UT-LN-102 is warranted for all parcels.</p> <p>No standards have been set by EPA or other regulatory agencies for greenhouse gases. In addition, the assessment of greenhouse gas emissions and climate change is still in its earliest stages of formulation. Global scientific models are inconsistent, and regional or local scientific models are lacking so that it is not technically feasible to determine the net impacts to climate due to greenhouse gas emissions. It is anticipated that greenhouse gas emissions associated with this action</p>	Leonard Herr / Colin Schwartz	5/7/2013

Determination	Resource	Rationale for Determination	Signature	Date
		<p>and its alternative(s) would be negligible.</p> <p>Application of stipulation UT-S-01 and lease notices UT-LN-96, UT-LN-99 and UT-LN-101 are warranted.</p>		
NI	Greenhouse Gas Emissions / Climate Change	<p>In addition to the air quality information contained within the governing LUP, new information about greenhouse gases (GHGs) and their effects on national and global climate conditions has emerged since LUP was prepared. Without additional meteorological monitoring and modeling systems, it is difficult to determine the spatial and temporal variability and change of climatic conditions; what is known is that increasing concentrations of GHGs are likely to accelerate the rate of climate change.</p> <p>Determining GHG emissions, their relationship to global climatic patterns, and the resulting impacts is an ongoing scientific process. The BLM does not have the ability to associate a BLM action's contribution to climate change with impacts in any particular area. The technology to be able to do so is not yet available. The inconsistency in results of scientific models used to predict climate change at the global scale coupled with the lack of scientific models designed to predict climate change on regional or local scales, limits the ability to quantify potential future impacts of decisions made at this level and determining the significance of any discrete amount of GHG emissions is beyond the limits of existing science. When further information on the impacts to climate change is known, such information would be incorporated into the BLM's planning and NEPA documents as appropriate.</p> <p>It is currently not feasible to know with certainty the net impacts from leasing and any potential exploration on climate. While BLM actions may contribute to the climate change phenomenon, the specific effects of those actions on global climate are</p>	Leonard Herr / Colin Schwartz	5/7/2013



Determination	Resource	Rationale for Determination	Signature	Date
		speculative given the current state of the science. Leasing the subject parcels would have no direct impacts on climate as a result of GHG emissions. There is an assumption; however that leasing the parcels would lead to some type of exploration that would have indirect effects on global climate through GHG emissions. However, those effects on global climate change cannot be determined. It is unknown whether the petroleum resources specific to these parcels are gas or oil or a combination thereof. Since these types of data as well as other data are unavailable at this time, it is also unreasonable to quantify GHG emission levels.		
PI	Areas of Critical Environmental Concern (ACECs)	<p>After review of the GIS/RMP data, it has been determined that lease parcels 6401, 6402, 6404, and 6440 contain portions of Short Creek - Rock Art ACEC. Parcel 6434 contains a portion of Molen Seep - Rock Art ACEC. Parcels 6435, 6436, 6438, 6439, 6440 contain portions of North Salt Wash - Rock Art ACEC. Parcel 6612 contains portions of the Big Hole-Rock Art ACEC. Stipulation UT-S-10 is applied to these 10 parcels.</p> <p>Parcels 197, 198 and 199 occur around, but do not intersect the Cleveland Lloyd Dinosaur Quarry ACEC. There are no other ACECs that intersect the parcels.</p>	Josh Winkler	5/20/2013
NI	BLM Sensitive Animal Species	<p>Ferruginous Hawks, Flannelmouth and Bluehead Suckers, and Roundtail Chubs have been observed and are known to occur within the parcel areas. There are also documented observations and potential habitat for white-tailed prairie dogs and burrowing owls within the area. Lease stipulations and notices should be added to those parcels to reduce any future project's impacts. Site-specific effects cannot be analyzed until an exploration or development application is received, after leasing has occurred.</p> <p>Stipulation UT-S-218 is attached to parcels 6470,</p>	Jared Reese	4/16/2013

Determination	Resource	Rationale for Determination	Signature	Date
		<p>6501, 6502, 6541 (White-tailed Prairie dogs).</p> <p>Lease Notice UT-LN-49 is attached to parcels 6534, 6535, 6536, 6540, 6659, and 6582 (Ferruginous hawks). Lease Notice UT-LN-49 is attached to parcels 6401, 6404, 6430, 6431, 6432, 6433, 6434, 6435, 6436, 6437, 6438, 6439, 6440, 6471, 6472, 6492, 6493, 6494, 6495, 6499, 6500, 6503, 6504, 6505, 6506, 6507, 6508, 6509, 6510, 6512, 6514, 6533, 6534, 6535, 6540, 6541, 6542, 6543, 6544, 6545, 6550, 6552, 6587, 6588, 6612, and 6614 (Potential habitat for white-tailed prairie dogs and burrowing owls). Lease Notice UT-LN-49 is attached to parcels 6499, 6500, 6542, 6545, and 6546 (Flannelmouth and Bluehead Suckers, and Roundtail Chub – Price River).</p>		
NI	Cultural Resources	<p>A complete inventory of the proposed lease parcels has not occurred; however cultural resource sites have been identified within the parcels.</p> <p>After consideration of cultural resource information and other general data including: the applicable Price Field Office Resource Management Plan (RMP) and associated Environmental Impact Statement (EIS); oil and gas activity NEPA documents; specific data relating to the individual proposed parcels such as topography and soils; as well as personal knowledge and experience of the lands at issue, it has been determined that reasonable development could occur without adverse impacts to known cultural properties eligible to the NRHP.</p> <p>The potential for locating additional cultural resources within the proposed lease parcels is unknown due to the low percentage of cultural resource survey conducted within all of the parcels.</p> <p>The BLM will not approve any ground disturbing activities that may affect such properties or resources until it completes its obligations under applicable requirements of the NHPA and other authorities. The</p>	Jamie Palmer	3/7/2013



Determination	Resource	Rationale for Determination	Signature	Date
		BLM may require modification to exploration or development proposals to protect properties, or disapprove any activity that is likely to result in adverse effects that cannot be successfully avoided, minimized or mitigated.  Application of stipulations UT-S-169 (cultural resources inventory) and WO IM 2005-003 is warranted for all parcels.		
NI	Environmental Justice	The ethnic composition and economic situation of residents of Carbon and Emery Counties indicate that no minority or low-income populations are experiencing disproportionately high or adverse effects from current management actions (RMP EIS). Leasing would not adversely or disproportionately affect minority, low income or disadvantaged groups.	Ahmed Mohsen	5/6/2013
NP	Farmlands (Prime or Unique)	After review of NRCS Soil Survey of Carbon Area, Utah, it is determined that there is no Prime or Unique Farmlands within the project area.	Jeffrey Brower	3/20/2013
NP	Floodplains	After review of USGS 7.5 min. maps of the project areas, no floodplain as defined by EO 11988, FEMA, or Corps of Engineers is found on or near the project area	Jeffrey Brower	3/20/2013
NI	Invasive, Non-native Species (EO 13112)	Area 1 Price-Sunnyside Area has musk thistle present. Surface disturbing activities could introduce or spread invasive/non-native species. Lessees would be required to control invasive/non-native species on roads, pads and ROWs. A PUP and PAR would be required before and after all chemical treatments. If treatment occurs as part of regular operations, BMPs, SOPs and site specific mitigation are applied at the APD stage as conditions of approval, then negligible impacts would be expected.  Stipulation UT-S-305 is attached to all parcels (Noxious Weeds).	Stephanie Bauer	4/1/2013

Determination	Resource	Rationale for Determination	Signature	Date
NI	Native American Religious Concerns	<p>Consultation ongoing.</p> <p>Letters containing notification of this lease sale, location maps and legal descriptions of the offered parcels were sent to the Tribes. The letters detailed the leasing proposal and requested comments and concerns.</p>	Jamie Palmer / Anita Jones	5/24/2013
PI	Threatened, Endangered or Candidate Plant Species	<p>There are known populations and/or potential habitat for <i>Pediocactus despainii</i>, <i>Sclerocactus wrightiae</i> and <i>Townsendia aprica</i> present within many of the proposed lease areas. Lease Notices and stipulations have been attached to parcels that are known to contain threatened, endangered or candidate plant species or their habitat and site-specific surveys will determine whether T&amp;E plant species are present. Should T&amp;E plant species be found, the surface use plan of operations may be amended to protect or avoid these species. Stipulation WO IM 2002-174 is applied to all parcels.</p> <p>T&amp;E Species Notices T&amp;E-05, T&amp;E-14, T&amp;E-15 and T&amp;E-17 are applied to several parcels, as shown in Appendix A, Parcel List.</p>	Dana Truman	4/16/2013
NI	Threatened, Endangered or Proposed Animal Species	<p>There is modeled potential habitat for Mexican Spotted Owls on some of the parcels, based upon USFWS GIS models. Colorado Pikeminnow is also known to occur within the Price River (a tributary to the Green River) which flows through several of the nominated Parcels. No other listed or proposed species would be expected to be potentially on these sites. Lease stipulations and notices should be added to those parcels to reduce any future project's impacts. Site-specific effects cannot be analyzed until an exploration or development application is received, after leasing has occurred. Until there is a site-specific proposal, there is no action directly or indirectly causing modifications to the land, water, or air, therefore "no effect" on any listed animal species or designated critical habitat. Each lease would be</p>	Jared Reese	4/16/2013

Determination	Resource	Rationale for Determination	Signature	Date
		<p>issued with the mandatory WO IM-2002-174 endangered species act stipulation.</p> <p>Stipulation S-269 and Notice T&amp;E-06 are applied to parcels 6507, 6509, 6512, 6514, 6545, 6546, and 6578 (MSO).</p> <p>T&amp;E-03 is applied to parcels 6499, 6500, 6542, 6545, and 6546a and 6546b (Colorado Pikeminnow).</p>		
NP	ESA Candidate Animal Species	None of the parcels are located within Greater Sage-grouse habitat according to UDWR data (March 2012).	Jared Reese	4/16/2013
NI	Wastes (hazardous or solid)	<p>No chemicals subject to reporting under SARA Title III will be used, produced, stored, transported, or disposed of annually in association with the project. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the project.</p> <p>Trash would be confined in a covered container and disposed of in an approved landfill. No burning of any waste will occur due to this project. Human waste will be disposed of in an appropriate manner in an approved sewage treatment center.</p>	Jeffrey Brower	3/20/2013
PI	Water Quality (drinking / ground)	The lease parcels do not occur within any Sole Source Aquifers or Drinking Water Source Protection Zones (DWSPZs). Compliance with IM UT 2010-055 would be completed prior to APD approval. Maintenance and refueling of equipment could impact water quality. However, standard protocols would minimize possibility of releases. Drill holes will be cased to an elevation below 5800 feet or when groundwater is encountered. No surface disturbance or occupancy would be maintained within 660 feet of any natural springs to protect the	Jeffrey Brower	3/20/2013

Determination	Resource	Rationale for Determination	Signature	Date
		<p>water quality of the spring. No new disturbance will be allowed in areas equal to the 100-year floodplain or 100 meters on either side of the center line of any stream, stream reach, or riparian area. At the time of development, drilling operators will conform to the provisions of the operational regulations and Onshore Oil &amp; Gas Order Number 2, which requires the protection and isolation of all useable quality waters. High-country watershed areas would be closed seasonally from December 1 to April 15 to surface disturbing activity at elevations above 7,000 feet. Lease Stipulations UT-S-126 and UT-S-127 are attached to all parcels (Natural Springs, and Floodplains, Riparian Areas, Springs and Public Water Resources). Lease Stipulation UT-S-156 is applied to parcels 6514 and 6578 (High Country Watershed).</p> <p>All soils with high erosion potential need care to prevent accelerated erosion that could be transported to streams that are already listed on the 303d list. This will be accomplished by careful placement of drill pads and access routes. Regular maintenance on roads and pads in highly erosive soils will be required. Stipulations UT-S-97 and UT-S-101 are attached to all parcels.</p>		
PI	Hydrologic Conditions	<p>The associated surface disturbance from oil and gas development on the proposed leases would have the potential to interrupt surface flow patterns which could create new channeling of surface runoff from storms and spring snow melt. The construction of well pads, roads and pipelines could interrupt surface runoff and create paths for concentrated surface flow. Impacts to hydrologic conditions could increase sediment loading and associated dissolved solids into streams. As described in water quality above, application of Stipulations UT-S-126, UT-S-127, and UT-S-156 is warranted on all parcels.</p>	Jeffrey Brower	3/20/2013

Determination	Resource	Rationale for Determination	Signature	Date
NI	Wetlands / Riparian Zones	<p>Wetlands/riparian zones are located on several parcels. Stipulations for no surface occupancy around natural springs (UT-S-126), no surface occupancy around intermittent and perennial streams (UT-S-127) and no surface use or disruptive activity within riparian areas are applied to all the parcels.</p> <p>Given the degree of anticipated exploration and development and application of standard operating procedures, best management practices and mitigation applied at the APD stage as conditions of approval it is concluded that Wetlands/Riparian Zones would be minimally impacted. Notice UT-LN-53 is also applied to parcels as shown in Appendix A.</p>	Karl Ivory	5/13/13
NP	Wild and Scenic Rivers	There are no Wild and Scenic Rivers within this project area as per RMP/GIS review.	Matt Blocker	4/18/2013
NP	Wilderness & Wilderness Study Areas	There are no Wilderness/WSAs within this project area as per RMP/GIS review.	Matt Blocker	4/18/2013
NI	Rangeland Health Standards and Guidelines	Water quality, soils, vegetation, Threatened & Endangered Species habitat and other components of ecological conditions that are considered in Rangeland Health Standards and Guides have been analyzed in the Price RMP. Given the degree of anticipated exploration and development and application of standard operating procedures, best management practices and mitigation applied at the APD stage as conditions of approval it is concluded that Rangeland Health Standards would continue to be met.	Dana Truman	4/16/2013
NI	Livestock Grazing	<p>Standard operating procedures, best management practices and site specific mitigation applied at the APD stage as conditions of approval will address livestock grazing resource issues not already analyzed in the Price RMP.</p> <p>Any range improvements such as fences and cattle-guards that would be affected would be replaced or</p>	Dana Truman	4/16/2013

Determination	Resource	Rationale for Determination	Signature	Date
		repaired by the applicant. The applicant would replace any barriers to livestock that are removed through field development.		
NI	Woodland / Forestry	Standard operating procedures, best management practices and site specific mitigation applied at the APD stage as conditions of approval will address woodland and forest resources issues not already analyzed in the PFO Proposed RMP/Final EIS.	Stephanie Bauer	4/1/2013
PI	Vegetation including Special Status Plant Species other than FWS candidate or listed species	<p>Standard operating procedures, best management practices and site specific mitigation applied at the APD stage as conditions of approval will address vegetation.</p> <p>There is potential habitat for sensitive species present in the proposed parcels. Stipulations and lease notices have been applied to affected parcels. Should any special status plant species be found, the surface use plan of operations may be amended to protect or avoid these species. Notice UT-LN-51 is applied to 6437, 6440, 6491- 6496, 6531-6536, 6578, 6580, 6582, 6585, 6612, 6614, 6649, 6653-6656, and 6658-6660.</p>	Dana Truman	4/16/2013

Determination	Resource	Rationale for Determination	Signature	Date
NI	Fish and Wildlife, excluding USFWS Listed Species and BLM Sensitive Species, e.g. Migratory birds	<p>The lease parcels contain pinyon-juniper, high cliffs, cottonwoods, riparian, and sagebrush areas, which are important habitats for mule deer, elk, raptors, and migratory birds. The area is mostly used as crucial wintering habitat for deer and elk, including crucial year-long habitat (fawning and calving) for elk and deer, according to the maps prepared by UDWR. Lease stipulations and notices should be added to those parcels to reduce any future project's impacts. Site-specific effects cannot be analyzed until an exploration or development application is received, after leasing has occurred. Some of the parcels have known raptor nests.</p> <p>Lease Stipulation UT-S-232 is attached to parcels 6470, 6471, 6491, 6492, 6493, 6494, 6530, 6531, 6532, 6533, 6534, 6535, 6536, 6578, 6580, 6582, and 6585 (Elk and Deer Crucial Winter).</p> <p>Stipulation UT-S-248 is attached to parcels 6491, 6492, 6493, 6494, 6511, 6512, 6513, 6514, 6530, 6531, 6533, 6532, 6534, 6535, 6536, 6552, 6556, 6578, 6580, 6582, and 6585 (Elk and Deer Fawning and Calving Habitat).</p> <p>Lease Notice UT-LN-45 is attached to all parcels (Migratory Birds).</p> <p>Stipulation UT-S-260 is attached to parcels 6493, 6494, 6496, 6530, 6531, 6533, 6534, 6535, 6536, 6540, 6543, 6578, 6580, 6582, 6585, and 6653 (Raptor Nesting).</p>	Jared Reese	4/16/2013
PI	Soils	<p>SOPs, BMPs and site specific design features including reclamation would be applied at the APD stage as COAs. Leasing and exploration would have minimal impact to soil resources.</p> <p>Lease Stipulations UT-S-97 and UT-S-101 are applied to all parcels (NSO for slopes greater than 40%, and CSU on slopes 20 – 40%).</p>	Jeffrey Brower	3/20/2013

Determination	Resource	Rationale for Determination	Signature	Date
		Many parcels include soils that have moderate to high erosion potential. Surface disturbance in these soils could create increased soil erosion. Care in placement of drill pads and access routes is required.		
PI	Recreation	<p>Almost all of parcel 6508, a quarter of parcel 6509 and a small portion of parcel 6510 are located in the Cleveland Lloyd Dino Quarry SRMA. This SRMA is set up as a destination recreation management area for tourism in the Price RMP. Table R9-3.</p> <p>Parcels 6401, 6402, 6404, 6432, 6433, 6434, 6435, 6436, 6437, 6438, 6439, 6440, 6512, 6513, 6514 and 6614 are located in the San Rafael Swell SRMA which is set up for the undeveloped recreation-tourism with portions that are destination areas associated with OHV use. Price RMP Table R9-5.</p> <p>While the remaining parcels are located in our ERMA.</p>	Josh Winkler	5/20/2013
PI	Visual Resources	<p>The Visual Resource Management (VRM) classes within the proposed action are found to be within a VRM class II, III and IV.</p> <p>Parcels 6500, 6502, 6545, 6546, 6508, and 6509 have portions that fall in the VRM class II. Stipulation UT-S-160 would be applied to these parcels.</p> <p>Parcels 6491, 6492, 6493, 6494, 6495, 6530, 6531, 6533, 6535, 6578, 6580, 6499, 6500, 6502, 6503, 6504, 6505, 6506, 6507, 6508, 6509, 6510, 6511, 6512, 6513, 6514, 6542, 6544, 6541, 6543, 6546, 6587, 6589, 6588, 6649, 6612, 6614, 6654, 6653, 6655, 6656, 6659, 6658, 6660, 6661, 6430, 6431, 6432, 6401, 6440, and 6404 have portions that fall in the VRM class III.</p> <p>The remainder and including some of the above listed parcels fall within VRM class IV.</p>	Josh Winkler	5/20/2013
NI	Geology / Mineral	The 2008 RMP FEIS adequately address the impacts of oil and gas leasing. Oil and gas exploration could	Greg Gochnour/	5/6/2013



Determination	Resource	Rationale for Determination	Signature	Date
	Resources / Energy Production	lead to an increased understanding of the geologic setting, as subsurface data obtained through lease operations may become public record. This information promotes an understanding of mineral resources as well as geologic interpretation. While conflicts could arise between oil and gas operations and other mineral operations, these could generally be mitigated under the regulations 3101.1-2, where proposed oil and gas operations may be moved up to 200 meters or delayed by 60 days and also under the standard lease terms (Sec. 6) where sitting and design of facilities may be modified to protect other resources. Mineral claims have been checked (27MAR2013) and were found in areas 3 & 4; however claims that are present or staked prior to drilling activities can be accommodated by the proposed action. There are existing unplugged wells located on parcels 6540, 6541 and 6543. Notice UT-LN-87 is applied to these parcels.	Don Stephens/ Chris Conrad	
NI	Paleontology	<p>The Morrison and Cedar Mountain Formations, Potential Fossil Yield Classification System - Class 5 formations, have surface exposure on several of the proposed lease parcels. Class 5 formations are defined as geologic units that are highly fossiliferous and consistently and predictably produce vertebrate fossils. The PFO RMP ROD Management Decisions PAL-1 and PAL-4 for paleontologic resources requires that a BLM-permitted paleontologist be on site prior to and during any surface disturbing activities. This includes roads, pads, pump stations, pipelines, etc. A pre-work survey by a paleontologist will be necessary. Mitigation can be avoidance or excavation by BLM-permitted paleontologists.</p> <p>Stipulations UT-S-176 and UT-S-177 are therefore attached to parcels 6430, 6431, 6432, 6433, 6434, 6435, 6436, 6437, 6439, 6440, 6499, 6500, 6502, 6503, 6504, 6505, 6506, 6507, 6508, 6509, 6510, 6511, 6512, 6513, 6514, 6541, 6542, 6543, 6544, 6545, 6546, 6550, 6552, 6556, 6587, 6589, 6612,</p>	Michael Leschin	5/20/2013

Determination	Resource	Rationale for Determination	Signature	Date
		6614, 6649, 6653, 6654, 6655, 6656, 6658, 6659, 6660, and 6661.		
NI	Lands / Access	As described, the proposed action would not affect access to public land. Off-lease ancillary facilities that cross public land, if any, may require separate authorizations. Subsequent projects should coordinate with existing ROW holders and apply operating procedures and site specific mitigation at the APD stage that would ensure protection of existing rights.	Connie Leschin / Amanda Harrington	3/18/2013 4/29/2013
NI	Fuels / Fire Management	At this stage (lease sale) there are no impacts to Fuels/Fire Management. Impacts (both direct and indirect) would occur when the lease is developed in the future. The potential impacts would be analyzed on a site-specific basis at the APD stage prior to development. Fuels vary from lease to lease but generally consist of Ponderosa Pine, Pinyon Juniper, Sage Brush, small shrubs and forbs and grasses.	Kevin Cahill	3/25/2013
NI	Socio-economics	The nominated parcels are located in rural areas with no commercial and minimal residential development. No impacts to socio-economics are expected to occur as a result of the proposed action.	Don Stephens	5/13/2013
NI	Wild Horses and Burros	As per review of GIS and RMP maps, none of the identified parcels lie within Wild Horse or Burro Herd Management Area Boundaries managed by the Price Field Office.	Mike Tweddell	4/25/2013
NP	BLM Natural Areas	There are no BLM Natural Areas within this project area as per RMP/GIS review.	Matt Blocker	4/18/2013
NI	Coal	Coal deposits are situated below proposed parcels near Emery, Utah in the Ferron Member of the Mancos Shale; however, there has been no public interest in coal thus situated. There are no existing coal leases or coal operations in areas identified in this proposal, and none are anticipated in the future, since more economic sources are found to the west, the Wasatch Cliffs, and further south near Walker	Chris Conrad	5/6/2013

Determination	Resource	Rationale for Determination	Signature	Date
		Flats. Map 24 of Price RMP indicates no coal resources will be affected. Twenty-one of the nominated parcels were deferred for coal conflicts (see Appendix D).		
PI	Non-WSA Lands with Wilderness Characteristics	Approximately 69,996 acres within 48 parcels are located within previously inventoried Non-WSA Lands with Wilderness Characteristics units.	Matt Blocker	4/18/13
PI	National Historic Trails	Three segments of the Old Spanish National Historic Trail are located within 11 parcels.  RMP Decisions TRA-7 (parcels 6612, 6653, 6654, 6655, 6658, 6659, 6660, & 6661) , TRA-8 (parcels 6612, 6614, 6658, & 6661) and TRA-9 (parcel 6401) would apply. In addition to these stipulations, notice UT-LN-65 would apply to each of these parcels within the 3 OST segments.	Matt Blocker	4/18/2013

---

**FINAL REVIEW:**

Reviewer Title	Signature	Date	Comments
Environmental Coordinator	Ahmed Mohsen /s/	8/16/13	
Authorized Officer	Patricia Clabaugh /s/	8/16/13	

## Appendix D – Deferred Lands List

UT1113 – 6374 - 014

T. 21 S., R. 6 E., Salt Lake

Sec. 13: All;

Sec. 22: Lots 1-8;

Sec. 23: Lots 1-4, NE;

Sec. 24: All;

Sec. 25: N2, E2SW, SE.

2,486.30 Acres

Emery County, Utah

Price Field Office

UT1113 – 6378 - 018

T. 21 S., R. 6 E., Salt Lake

Sec. 22: Lot 11, 12;

Sec. 27: Lots 1-6, W2NE, E2SW;

Secs. 28 and 29: All;

Sec. 33: Lots 1-10, N2NE, W2SE, SESE;

Sec. 34: NWNW.

2,387.49 Acres

Emery County, Utah

Price Field Office

UT1113 – 6379 - 019

T. 21 S., R. 6 E., Salt Lake

Sec. 26: E2W2, NWNW, W2SE;

Sec. 34: S2SE;

Sec. 35: E2E2, NWNE, SWSW.

600.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6380 - 020

T. 21 S., R. 6 E., Salt Lake

Sec. 31: All.

618.85 Acres

Emery County, Utah

Price Field Office

UT1113 – 6381 - 021

T. 22 S., R. 6 E., Salt Lake

Sec. 1: Lot 2, S2NE, N2SE, SWSE;

Sec. 11: NENE, SENW, E2SE;

Sec. 12: W2NE, SENE, S2;

Sec. 14: SWNW, NWSW;

Sec. 15: Lot 1.

962.95 Acres

Emery County, Utah

Price Field Office

UT1113 – 6382 - 022

T. 22 S., R. 6 E., Salt Lake

Sec. 3: Lots 1, 2, SWNW;

Sec. 4: Lots 1-6, SENE;

Sec. 5: All.

1,087.42 Acres

Emery County, Utah

Price Field Office

UT1113 – 6383 - 023

T. 22 S., R. 6 E., Salt Lake

Secs. 6 and 7: All;

Sec. 8: Lots 1-8, SWNE, E2SW, W2SE.

1,809.31 Acres

Emery County, Utah

Price Field Office

UT1113 – 6384 - 024

T. 22 S., R. 6 E., Salt Lake

Sec. 13: E2, E2W2, NWNW, SWSW;

Secs. 24 and 25: All.

1,840.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6385 - 025

T. 22 S., R. 6 E., Salt Lake

Sec. 17: N2NW, SWNW;

Sec. 18: All;

Sec. 19: Lots 1, 2, NE, E2NW, NESW, N2SE;

Sec. 20: NWSW.

1,244.49 Acres

Emery County, Utah

Price Field Office

UT1113 – 6386 - 026

T. 22 S., R. 6 E., Salt Lake

Sec. 23: SESE;

Sec. 26: E2NE, W2, SE;

Sec. 34: S2;

Sec. 35: All.

1,560.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6729 - 027

T. 23 S., R. 6 E., Salt Lake

Sec. 1: Lots 1, 2, SENE, SWNW, W2SW, E2SE;  
Secs. 3 and 4: All.  
1,621.40 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6730 - 028  
T. 23 S., R. 6 E., Salt Lake  
Sec. 5: Lots 1-3, S2N2, S2;  
Sec. 6: Lots 6, 7, S2NE, E2SW, SE;  
Sec. 7: Lots 1-4, NE, E2W2;  
Sec. 8: E2.  
1,802.21 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6731 - 029  
T. 23 S., R. 6 E., Salt Lake  
Secs. 9, 10 and 11: All;  
Sec. 12: E2, W2W2.  
2,400.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6732 - 030  
T. 23 S., R. 6 E., Salt Lake  
Sec. 13: E2, W2SW, SESW;  
Secs. 14 and 15: All;  
Sec. 17: E2.  
2,040.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6733 - 031  
T. 23 S., R. 6 E., Salt Lake  
Secs. 20, 21 and 22: All.  
1,961.60 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6734 - 032  
T. 23 S., R. 6 E., Salt Lake  
Secs. 23, 24 and 25: All.  
1,947.92 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6735 - 033  
T. 23 S., R. 6 E., Salt Lake

Secs. 26, 27, 28 and 29: All.  
2,560.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6736 - 034  
T. 23 S., R. 6 E., Salt Lake  
Secs. 33, 34 and 35: All.  
1,920.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6772 - 035  
T. 24 S., R. 6 E., Salt Lake  
Secs. 1, 3 and 4: All.  
2,509.20 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6773 - 036  
T. 24 S., R. 6 E., Salt Lake  
Secs. 5, 6 and 7: All.  
2,390.52 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6774 - 037  
T. 24 S., R. 6 E., Salt Lake  
Secs. 8, 9, 10 and 11: All.  
2,560.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6775 - 038  
T. 24 S., R. 6 E., Salt Lake  
Secs. 12, 13, 14 and 15: All.  
2,560.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6776 - 039  
T. 24 S., R. 6 E., Salt Lake  
Secs. 17, 18 and 19: All.  
2,008.79 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6777 - 040  
T. 24 S., R. 6 E., Salt Lake

Secs. 20, 21, 22 and 23: All.  
2,560.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6778 - 041  
T. 24 S., R. 6 E., Salt Lake  
Secs. 24, 25, 26 and 27: All.  
2,560.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6779 - 042  
T. 24 S., R. 6 E., Salt Lake  
Secs. 28, 33, 34 and 35: All.  
2,560.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6780 - 043  
T. 24 S., R. 6 E., Salt Lake  
Secs. 29, 30 and 31: All.  
2,010.24 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6860 - 044  
T. 25 S., R. 6 E., Salt Lake  
Secs. 1, 3, 4 and 5: All.  
2,506.92 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6861 - 045  
T. 25 S., R. 6 E., Salt Lake  
Secs. 6, 7, 8 and 9: All.  
2,540.63 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6862 – 046  
T. 25 S., R. 6 E., Salt Lake  
Secs. 10, 11, 12 and 13: All.  
2,560.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6863 - 047  
T. 25 S., R. 6 E., Salt Lake



Secs. 14, 15, 17 and 18: All.  
2,557.84 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6864 - 048  
T. 25 S., R. 6 E., Salt Lake  
Secs. 19, 20, 21 and 22: All.  
2,558.28 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6865 - 049  
T. 25 S., R. 6 E., Salt Lake  
Secs. 23, 24, 25 and 26: All.  
2,560.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6866 - 050  
T. 25 S., R. 6 E., Salt Lake  
Secs. 27, 28, 29 and 30: All.  
2,558.96 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6867 - 051  
T. 25 S., R. 6 E., Salt Lake  
Secs. 31, 33 and 34: All;  
Sec. 35: S2NW, S2.  
2,319.64 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6900 - 052  
T. 26 S., R. 6 E., Salt Lake  
PB 38 (Sec. 3): All;  
PB 39 (Sec. 4): All;  
PB 40 (Sec. 5): All;  
PB 41 (Sec. 6): All.  
2,052.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6901 - 053  
T. 26 S., R. 6 E., Salt Lake  
PB 42 (Sec. 7): All;  
PB 43 (Sec. 8): All;  
PB 44 (Sec. 9): All;

PB 45 (Sec. 10): All.  
1,983.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6902 - 054  
T. 26 S., R. 6 E., Salt Lake  
PB 49 (Sec. 13): All;  
PB 57 (Sec. 24): All.  
1,278.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6903 - 055  
T. 26 S., R. 6 E., Salt Lake  
Sec. 14: All;  
PB 50 (Sec. 15): All;  
PB 51 (Sec. 17): All;  
PB 52 (Sec. 18): All.  
1,981.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6904 - 056  
T. 26 S., R. 6 E., Salt Lake  
PB 53 (Sec. 19): All;  
PB 54 (Sec. 20): All;  
PB 55 (Sec. 21): All;  
PB 56 (Sec. 22): All.  
1,979.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6905 - 057  
T. 26 S., R. 6 E., Salt Lake  
Sec. 23: All;  
PB 58 (Sec. 25): All;  
PB 59 (Sec. 26): All;  
PB 60 (Sec. 27): All.  
2,558.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6906 – 058  
T. 26 S., R. 6 E., Salt Lake  
PB 61 (Sec. 28): All;  
PB 62 (Sec. 29): All;  
PB 67 (Sec. 35): All.  
1,608.00 Acres

Emery & Wayne Counties, Utah  
Price Field Office  
Richfield Field Office

UT1113 – 6391 - 063  
T. 19 S., R. 7 E., Salt Lake  
Sec. 13: E2NE;  
Sec. 14: Lots 1-4, NWNE, W2SW;  
Sec. 15: Lots 3, 4, W2SE;  
Sec. 22: Lots 1-10, E2SW, N2SE;  
Sec. 23: SWNW.

1,105.20 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6393 - 065  
T. 19 S., R. 7 E., Salt Lake  
Sec. 24: SESW, SWSE, E2SE;  
Sec. 25: N2NW, SWNW;  
Sec. 26: Lots 1, 2, S2NE, NESW;  
Sec. 27: Lots 1-11;  
Sec. 34: N2, N2SW, SWSW, NWSE, S2SE, Excluding U432;  
Sec. 35: N2NW, SWNW, SE.

1,696.24 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6394 - 066  
T. 19 S., R. 7 E., Salt Lake  
Sec. 29: E2;  
Secs. 28, 31 and 33: All.  
2,254.12 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6395 - 067  
T. 20 S., R. 7 E., Salt Lake  
Sec. 1: Lots 1-4, S2N2, NESE;  
Sec. 12: SWNE, NWSE.

438.80 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6396 - 068  
T. 20 S., R. 7 E., Salt Lake  
Sec. 4: Lots 3, 4, SENE, S2NW;  
Sec. 5: Lots 1-8, S2NE, NESW, N2SE, Excluding U14858;  
Sec. 6: Lots 1-6, 8-10, S2NE, SENW, NESW, N2SE.

1,332.79 Acres

Emery County, Utah  
Price Field Office

UT1113 – 6397 - 069  
T. 20 S., R. 7 E., Salt Lake  
Sec. 17: SWSW;  
Secs. 18 and 19: All;  
Sec. 20: NWNW, SWSE.  
1,414.98 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6398 - 070  
T. 20 S., R. 7 E., Salt Lake  
Sec. 21: SWSW;  
Sec. 27: NWNW;  
Sec. 28: S2NW, N2SW, SWSW, Excluding U432;  
Sec. 29: E2SE;  
Sec. 33: W2W2.  
476.50 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6399 - 071  
T. 20 S., R. 7 E., Salt Lake  
Secs. 30 and 31: All.  
1,305.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6400 - 072  
T. 21 S., R. 7 E., Salt Lake  
Sec. 5: All;  
Sec. 8: N2NW, SW, NWSE;  
Sec. 9: NWNW;  
Sec. 17: N2NW, SWNW.  
1,081.48 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6403 - 075  
T. 21 S., R. 7 E., Salt Lake  
Sec. 30: Lots 1-3, NENW;  
Sec. 31: Lot 3.  
200.49 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6404 - 076                      LLD reduced due to time constraints

T. 21 S., R. 7 E., Salt Lake  
Sec. 33: SENW.

40.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6405 - 077

T. 22 S., R. 7 E., Salt Lake  
Secs. 1, 11 and 12: All.

1,984.84 Acres

Emery County, Utah

Price Field Office

UT1113 – 6406 - 078

T. 22 S., R. 7 E., Salt Lake  
Sec. 3: All;  
Sec. 4: Lots 1, 2, SENE, E2SE;  
Secs. 10 and 15: All.

2,219.64 Acres

Emery County, Utah

Price Field Office

UT1113 – 6407 - 079

T. 22 S., R. 7 E., Salt Lake  
Sec. 4: W2SW;  
Sec. 5: SESE;  
Sec. 7: E2SE;  
Sec. 8: E2, E2NW, SW;  
Sec. 9: SENE, W2, SE;  
Sec. 17: All;  
Sec. 18: NENE.

1,960.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6408 - 080

T. 22 S., R. 7 E., Salt Lake  
Sec. 7: Lot 4;  
Sec. 18: Lots 1-4, SWNE, SENW, E2SW, W2SE;  
Sec. 19: Lots 1-4, NWNE, E2W2, W2SE, SESE;

1,022.97 Acres

Emery County, Utah

Price Field Office

UT1113 – 6409 - 081

T. 22 S., R. 7 E., Salt Lake  
Secs. 13, 14, 23 and 24: All.

2,560.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6410 - 082

T. 22 S., R. 7 E., Salt Lake

Sec. 20: E2, E2NW, NESW;

Secs. 21 and 22: All.

1,720.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6411 - 083

T. 22 S., R. 7 E., Salt Lake

Secs. 25, 26 and 35: All.

1,920.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6412 - 084

T. 22 S., R. 7 E., Salt Lake

Secs. 27, 28, 33 and 34: All.

2,560.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6413 - 085

T. 22 S., R. 7 E., Salt Lake

Secs. 29, 30 and 31: All.

1,920.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6737 - 086

T. 23 S., R. 7 E., Salt Lake

Secs. 1 and 3: All.

1,732.16 Acres

Emery County, Utah

Price Field Office

UT1113 – 6738 - 087

T. 23 S., R. 7 E., Salt Lake

Secs. 4, 5 and 6: All.

2,152.47 Acres

Emery County, Utah

Price Field Office

UT1113 – 6739 - 088

T. 23 S., R. 7 E., Salt Lake

Secs. 7, 8 and 9: All.

1,591.32 Acres

Emery County, Utah  
Price Field Office

UT1113 – 6740 - 089  
T. 23 S., R. 7 E., Salt Lake  
Secs. 10, 11, 12 and 13: All.  
2,560.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6741 - 090  
T. 23 S., R. 7 E., Salt Lake  
Secs. 14, 15, 17 and 18: All.  
2,232.16 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6742 - 091  
T. 23 S., R. 7 E., Salt Lake  
Secs. 19, 20, 21 and 22: All.  
2,232.88 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6743 - 092  
T. 23 S., R. 7 E., Salt Lake  
Secs. 23, 24, 25 and 26: All.  
2,560.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6744 - 093  
T. 23 S., R. 7 E., Salt Lake  
Secs. 27, 28, 29 and 30: All.  
2,233.24 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6745 - 094  
T. 23 S., R. 7 E., Salt Lake  
Secs. 31, 33, 34 and 35: All.  
2,233.44 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6781 - 095  
T. 24 S., R. 7 E., Salt Lake  
Sec. 1: Lots 1-4, S2N2, E2SE;  
Secs. 3 and 4: All.

1,690.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6782 - 096  
T. 24 S., R. 7 E., Salt Lake  
Secs. 5, 6, 7 and 8: All.  
1,917.46 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6783 - 097  
T. 24 S., R. 7 E., Salt Lake  
Secs. 9, 10 and 11: All;  
Sec. 12: NWNW, S2NW, SW.  
2,280.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6784 - 098  
T. 24 S., R. 7 E., Salt Lake  
Sec. 13: W2;  
Secs. 14, 15 and 17: All.  
2,240.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6785 - 099  
T. 24 S., R. 7 E., Salt Lake  
Secs. 18, 19, 20 and 21: All.  
1,905.16 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6786 - 100  
T. 24 S., R. 7 E., Salt Lake  
Secs. 22 and 23: All;  
Sec. 24: SWNE, W2;  
Sec. 25: SWNE, W2, W2SE, SESE.  
2,120.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6787 - 101  
T. 24 S., R. 7 E., Salt Lake  
Secs. 26, 27 and 28: All.  
1,920.00 Acres  
Emery County, Utah  
Price Field Office



UT1113 – 6788 - 102  
T. 24 S., R. 7 E., Salt Lake  
Secs. 29, 30 and 31: All.  
1,267.96 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6789 - 103  
T. 24 S., R. 7 E., Salt Lake  
Secs. 33, 34 and 35: All.  
1,920.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6414 - 104  
T. 26 S., R. 7 E., Salt Lake  
Sec. 7: W2, N2SE;  
Sec. 18: W2, W2SE, SESE;  
Sec. 19: All;  
Sec. 20: NENE, S2N2, S2.  
1,951.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6415 - 105  
T. 13 S., R. 8 E., Salt Lake  
Sec. 21: SWNE, SWSW;  
Sec. 28: NW, NESW.  
280.00 Acres  
Carbon County, Utah, Utah  
Price Field Office

UT1113 – 6416 - 106  
T. 13 S., R. 8 E., Salt Lake  
Sec. 23: NWNE, NENW.  
80.00 Acres  
Carbon County, Utah, Utah  
Price Field Office

UT1113 – 6420 - 110  
T. 16 S., R. 8 E., Salt Lake  
Sec. 9: E2NE, NESE;  
Sec. 21: NESE.  
160.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6421 - 111

T. 17 S., R. 8 E., Salt Lake  
Sec. 12: SWNENE, W2SENENE, SESENENE, E2SENWNE, NWSW.  
62.50 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6423 - 113  
T. 18 S., R. 8 E., Salt Lake  
Sec. 19: Lot 4, NENE;  
Sec. 31: Lot 3.  
119.43 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6424 - 114  
T. 19 S., R. 8 E., Salt Lake  
Sec. 1: Lots 2, 3, 5, 6, S2NE, SENW, SW, S2SE;  
Sec. 3: SESE;  
Sec. 11: E2NE, SESW, SE;  
Sec. 12: All;  
Sec. 13: NENE, W2E2, NENW, SW, SESE;  
Sec. 14: S2NE, S2.  
2,316.22 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6425 - 115  
T. 19 S., R. 8 E., Salt Lake  
Sec. 7: Lots 2-4, E2SW, SWSE;  
Sec. 17: NWNW, E2SW, NESE;  
Sec. 18: Lots 1, 2, W2NE, E2NW;  
Sec. 19: Lots 3, 4, NESW;  
Sec. 31: Lot 4, E2NE, NWNE, E2SW, SE.  
1,165.54 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6426 - 116  
T. 19 S., R. 8 E., Salt Lake  
Sec. 15: S2SW;  
Sec. 20: Lots 1-4, NESW;  
Sec. 21: NE, E2NW, SWNW, NESW, NESE;  
Sec. 22: Lots 1, 2.  
733.20 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6427 - 117  
T. 19 S., R. 8 E., Salt Lake

Sec. 22: Lots 3-6, S2SW;  
Secs. 23, 24 and 25: All.

2,169.13 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6428 - 118  
T. 19 S., R. 8 E., Salt Lake  
Sec. 26: All;  
Sec. 27: N2, E2SE, SWSE;  
Sec. 28: Lot 1;  
Sec. 35: N2N2, SENE, SWNW, NWSW, NESE, SWSE.

1,482.46 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6429 - 119  
T. 20 S., R. 8 E., Salt Lake  
Sec. 5: Lots 2-4, S2NW, N2SW;  
Sec. 6: Lots 1-6, S2NE, SENW, E2SW, W2SE, NESE;  
Sec. 7: W2NE, NENW.

961.23 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6442 - 131  
T. 22 S., R. 8 E., Salt Lake  
Secs. 1, 11 and 12: All.

1,984.88 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6443 - 132  
T. 22 S., R. 8 E., Salt Lake  
Secs. 3 and 4: All;  
Sec. 5: Lot 8, S2NE, E2SW, SWSW, SE.

1,813.88 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6444 - 133  
T. 22 S., R. 8 E., Salt Lake  
Secs. 6, 7 and 8: All.

1,951.10 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6445 - 134  
T. 22 S., R. 8 E., Salt Lake

Secs. 9, 10, 15 and 22: All.  
2,560.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6446 - 135  
T. 22 S., R. 8 E., Salt Lake  
Secs. 13, 14 and 23: All;  
Sec. 24: N2, SW, NWSE.  
2,440.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6447 - 136  
T. 22 S., R. 8 E., Salt Lake  
Secs. 17, 18, 20 and 21: All.  
2,545.76 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6448 - 137  
T. 22 S., R. 8 E., Salt Lake  
Secs. 19, 29, 30 and 31: All.  
2,527.20 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6449 - 138  
T. 22 S., R. 8 E., Salt Lake  
Sec. 25: N2NW, SWNW;  
Sec. 26: N2, SW, N2SE, SWSE;  
Secs. 27 and 28: All.  
2000.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6450 - 139  
T. 22 S., R. 8 E., Salt Lake  
Secs. 33 and 34: All;  
Sec. 35: W2NE, NW, NWSW.  
1,560.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6452 - 141  
T. 17 S., R. 9 E., Salt Lake  
Sec. 1: Lot 4, S2NW;  
Sec. 9: W2NE, SENE, E2NW, SWNW, E2SW, NWSE.  
480.68 Acres

Emery County, Utah  
Price Field Office

UT1113 – 6453 - 142  
T. 17 S., R. 9 E., Salt Lake  
Sec. 17: S2SW;  
Sec. 29: NWSW;  
Sec. 30: SENE.

160.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6454 - 143  
T. 18 S., R. 9 E., Salt Lake  
Sec. 6: NWSE;  
Sec. 18: Lot 3, SWSE.

120.39 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6455 - 144  
T. 19 S., R. 9 E., Salt Lake  
Sec. 7: Lots 2-4, SESW;  
Sec. 17: NE, E2NW, SWNW, W2SW, N2SE;  
Sec. 18: Lots 4, 5, S2NE, NWNE, NENW, SESW, NESE, S2SE;  
Sec. 19: All;  
Sec. 20: SWNE, W2, SE.

2,162.59 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6456 - 145  
T. 19 S., R. 9 E., Salt Lake  
Sec. 29: E2, NW, N2SW, SESW;  
Sec. 30: Lots 1-4, NE, E2W2, N2SE, SWSE;  
Sec. 31: Lots 1-4, W2NE, E2W2, SE.

1,757.60 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6457 - 146  
T. 20 S., R. 9 E., Salt Lake  
Sec. 23: E2SW, SE;  
Secs. 26, 27 and 28: All.

2,160.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6458 - 147

T. 20 S., R. 9 E., Salt Lake  
Sec. 24: E2NE.

80.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6459 - 148

T. 20 S., R. 9 E., Salt Lake  
Secs. 33, 34 and 35: All.

1,920.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6460 - 149

T. 20 S., R. 9 E., Salt Lake  
Sec. 31: Lots 3, 4, SENW, E2SW, SE;

T. 21 S., R. 9 E., Salt Lake  
Secs. 5 and 6: All.

2,089.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6461 - 150

T. 21 S., R. 9 E., Salt Lake  
Secs. 3, 4 and 9: All.

2,394.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6462 - 151

T. 21 S., R. 9 E., Salt Lake  
Secs. 7, 8, 17 and 18: All.

2,518.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6463 - 152

T. 21 S., R. 9 E., Salt Lake  
Sec. 15: W2W2;  
Secs. 19, 20 and 21: All;  
Sec. 22: NW.

2,220.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6464 - 153

T. 21 S., R. 9 E., Salt Lake  
Sec. 28: W2;  
Secs. 29, 30 and 31: All;

Sec. 33: W2W2.  
2,361.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6465 - 154  
T. 12 S., R. 10 E., Salt Lake  
COAL CONFLICTS  
Sec. 20: S2S2;  
Sec. 21: SWNE, NESW;  
Sec. 29: NWNE, NW, NWSW;  
Sec. 30: Lots 1-4, NE, E2W2, N2SE, SWSE.  
1,058.24 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6466 - 155  
T. 12 S., R. 10 E., Salt Lake  
COAL CONFLICTS  
Sec. 21: E2SE, SWSE;  
Sec. 27: W2NE, SENE, W2;  
Sec. 28: E2, E2NW, SWNW, SW;  
Sec. 29: E2SE;  
Sec. 33: All;  
Sec. 34: N2NW, SWNW.  
2,000.00 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6467 - 156  
T. 13 S., R. 10 E., Salt Lake  
COAL CONFLICTS  
Sec. 1: Lots 5-8, S2SW;  
Sec. 12: All.  
949.76 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6468 - 157  
T. 13 S., R. 10 E., Salt Lake  
COAL CONFLICTS  
Sec. 3: Lot 4, S2NW, S2;  
Sec. 4: Lots 3, 4, S2NW, N2SW, SESE;  
Sec. 7: Lots 4, 11, E2SW;  
Sec. 8: Lot 4;  
Sec. 10: N2, W2SW.  
1319.70 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6469 - 158  
T. 15 S., R. 10 E., Salt Lake  
Sec. 27: SWNW, S2SW.

120.00 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6471 - 160  
T. 16 S., R. 10 E., Salt Lake  
Sec. 19: SWSE;  
Sec. 30: SENE;  
Sec. 31: NENE;  
Sec. 33: NWNW.

LLD reduced due to time constraints

160.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6473 - 162  
T. 17 S., R. 10 E., Salt Lake  
Sec. 19: SESW, SWSE.

80.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6474 - 163  
T. 18 S., R. 10 E., Salt Lake  
Secs. 13, 14, 23 and 24: All.  
2,560.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6475 - 164  
T. 18 S., R. 10 E., Salt Lake  
Secs. 19, 30 and 31: All.  
1,942.66 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6476 - 165  
T. 18 S., R. 10 E., Salt Lake  
Secs. 22, 25, 26 and 27: All.  
2,560.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6477 - 166  
T. 18 S., R. 10 E., Salt Lake  
Sec. 28: N2, E2SW, SE;  
Sec. 33: NE, E2NW, S2;  
Secs. 34 and 35: All.  
2,400.00 Acres  
Emery County, Utah



Price Field Office

UT1113 – 6478 - 167  
T. 19 S., R. 10 E., Salt Lake  
Secs. 1, 11 and 12: All.  
1,959.12 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6479 - 168  
T. 19 S., R. 10 E., Salt Lake  
Secs. 6, 7 and 18: All.  
1,984.45 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6480 - 169  
T. 19 S., R. 10 E., Salt Lake  
Secs. 13, 14, 23 and 24: All.  
2,560.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6481 - 170  
T. 19 S., R. 10 E., Salt Lake  
Sec. 15: SW;  
Secs. 21, 22 and 27: All.  
2,080.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6482 - 171  
T. 19 S., R. 10 E., Salt Lake  
Secs. 17, 19 and 20: All.  
1,929.56 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6483 - 172  
T. 19 S., R. 10 E., Salt Lake  
Secs. 25, 26, 34 and 35: All.  
2,560.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6484 - 173  
T. 19 S., R. 10 E., Salt Lake  
Secs. 28, 29 and 33: All.  
1,920.00 Acres

Emery County, Utah  
Price Field Office

UT1113 – 6485 - 174  
T. 19 S., R. 10 E., Salt Lake  
Secs. 30 and 31: All.  
1,301.20 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6486 - 175  
T. 12 S., R. 11 E., Salt Lake  
Sec. 3: All;  
Sec. 10: SWNE, SENW;  
Sec. 11: N2NW, SWNW, E2SW.  
932.69 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6487 - 176  
T. 12 S., R. 11 E., Salt Lake  
Sec. 5: Lots 6-8;  
Sec. 6: Lots 7, 8, 10.  
137.14 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6488 - 177  
T. 12 S., R. 11 E., Salt Lake  
Sec. 22: SESW, SWSE;  
Sec. 26: SWNW;  
Sec. 27: NWNE, S2NE, SE;  
Sec. 34: All;  
Sec. 35: N2S2, SWSW.  
1,240.00 Acres  
Carbon County, Utah  
Price Field Office

COAL CONFLICTS

UT1113 – 6489 - 178  
T. 13 S., R. 11 E., Salt Lake  
Sec. 3: Lots 1-3;  
Sec. 10: E2SW, SWSE;  
Sec. 13: E2;  
Sec. 14: S2;  
Sec. 15: NWNE, E2W2, SWSW, SE.  
1,277.04 Acres  
Carbon County, Utah  
Price Field Office

COAL CONFLICTS

UT1113 – 6490 - 179

T. 13 S., R. 11 E., Salt Lake

COAL CONFLICTS

Sec. 7: Lots 1, 4, E2, NENW;

Sec. 8: SWNE, SENW, SWSW, E2SW, SE;

Sec. 9: SW;

Sec. 17: N2, N2S2;

Sec. 18: Lots 1, 2, E2, NENW.

1,891.93 Acres

Carbon County, Utah

Price Field Office

UT1113 – 6497 - 186

T. 14 S., R. 11 E., Salt Lake

Sec. 31: SESW.

40.00 Acres

Carbon County, Utah

Price Field Office

UT1113 – 6498 - 187

T. 15 S., R. 11 E., Salt Lake

Sec. 23: W2E2, NW, N2SW, SESW;

Sec. 24: N2SW;

Sec. 25: W2, SE;

Sec. 26: N2NE, SENE, NESE.

1,160.00 Acres

Carbon County, Utah

Price Field Office

UT1113 – 6508 – 197 CLDQ>NNL (80.00 Acres) Removed

T. 17 S., R. 11 E., Salt Lake

Sec. 21: SESE;

Sec. 28, NENE.

80.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6515 - 204

T. 18 S., R. 11 E., Salt Lake

Sec. 21: W2NE, W2;

Sec. 27: S2N2, S2;

Sec. 28: S2NE, W2, SE;

Sec. 33: All.

2,080.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6516 - 205

T. 18 S., R. 11 E., Salt Lake

Secs. 23 and 24: All;

Sec. 25: N2, E2SW, SE;  
Sec. 26: N2, NWSW, E2SE.  
2,280.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6517 - 206  
T. 18 S., R. 11 E., Salt Lake  
Secs. 29, 30 and 31: All.  
1,901.20 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6518 - 207  
T. 19 S., R. 11 E., Salt Lake  
Sec. 1: S2SW;  
Sec. 12: N2NW.  
160.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6519 - 208  
T. 19 S., R. 11 E., Salt Lake  
Sec. 4: Lot 4, SWNE, S2NW, S2;  
Secs. 5 and 6: All;  
Sec. 8: NE.  
1,998.52 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6520 - 209  
T. 19 S., R. 11 E., Salt Lake  
Sec. 7: All;  
Sec. 8: W2W2;  
Sec. 17: NENW;  
Sec. 18: All.  
1,464.16 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6521 - 210  
T. 19 S., R. 11 E., Salt Lake  
Secs. 19, 30 and 31: All.  
1,902.40 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6522 - 211  
T. 19 S., R. 11 E., Salt Lake

Sec. 20: S2NW, SW;  
Sec. 28: SW, W2SE;  
Sec. 29: S2NE, NW, S2;  
Sec. 33: W2NE, W2, SE.

1,600.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6523 - 214  
T. 12 S., R. 12 E., Salt Lake  
Sec. 1: Lots 1-5, SWNE, S2NW, SW, W2SE;  
Sec. 11: N2NE, SENE;  
Sec. 12: Lots 1-10, SE.

1,247.15 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6524 - 215  
T. 12 S., R. 12 E., Salt Lake  
Sec. 3: Lots 1-4, S2N2;  
Sec. 4: Lots 1-4.

530.48 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6525 - 216  
T. 12 S., R. 12 E., Salt Lake  
Sec. 22: NENE, W2E2, SWNW, W2SW, SESW, SESE;  
Sec. 23: SENE, NWNW, E2W2, SE;  
Sec. 24: N2NE, SWNE, S2NW, SW.

1,160.00 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6526 - 217  
T. 12 S., R. 12 E., Salt Lake  
Sec. 18: Lots 3, 4, SENE, E2SW, SE;  
Sec. 19: Lot 1, N2NE, SWNE, E2NW;  
Sec. 20: N2SW, NWSE.

710.84 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6527 - 218  
T. 12 S., R. 12 E., Salt Lake  
Sec. 25: E2NE, NENW, SWNW, W2SW, NWSE;  
Sec. 26: NENE, W2E2, E2NW, SWNW, E2SW, SESE;  
Sec. 27: NWNE, NWNW, S2N2, NWSW;  
Sec. 28: N2NE, SENE, NENW;

Sec. 35: E2, E2W2.  
1,640.00 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6528 - 219  
T. 13 S., R. 12 E., Salt Lake  
Sec. 7: S2SE;  
Secs. 18 and 19: All;  
Sec. 20: S2;  
Sec. 21: S2NW, S2.  
2,094.09 Acres  
Carbon County, Utah  
Price Field Office

COAL CONFLICTS

UT1113 – 6529 - 220  
T. 13 S., R. 12 E., Salt Lake  
Sec. 22: S2S2;  
Sec. 23: E2NE, S2;  
Sec. 25: E2, SW;  
Secs. 26 and 27: All.  
2,320.00 Acres  
Carbon County, Utah  
Price Field Office

COAL CONFLICTS

UT1113 – 6537 - 228  
T. 15 S., R. 12 E., Salt Lake  
Sec. 1: Lots 1, 3-7, S2NW, SWSE;  
Sec. 3: Lot 1, 2, S2NE, SE.  
686.77 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6538 - 229  
T. 15 S., R. 12 E., Salt Lake  
Secs. 11, 13 and 14: All;  
Sec. 12: Lots 3, 4, SW, W2SE.  
2,239.21 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6539 - 230  
T. 15 S., R. 12 E., Salt Lake  
Sec. 22: SE;  
Sec. 23: All;  
Sec. 24: W2NE, W2;  
Sec. 26: W2SW;  
Sec. 27: E2.  
1,600.00 Acres

Carbon County, Utah  
Price Field Office

UT1113 – 6547 - 238  
T. 17 S., R. 12 E., Salt Lake  
Sec. 1: All;  
Sec. 11: E2NE, NWNE, W2NW, S2;  
Sec. 12: Lots 1-4, W2NE, NW, SWSW, NWSE.  
1,735.05 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6548 - 239  
T. 17 S., R. 12 E., Salt Lake  
Secs. 3, 9 and 10: All.  
1,967.16 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6549 - 240  
T. 17 S., R. 12 E., Salt Lake  
Secs. 4, 5 and 8: All.  
2,016.40 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6551 - 242  
T. 17 S., R. 12 E., Salt Lake  
Secs. 13, 14 and 15: All.  
1,937.28 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6553 - 244  
T. 17 S., R. 12 E., Salt Lake  
Secs. 20, 21 and 22: All.  
1,920.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6554 - 245  
T. 17 S., R. 12 E., Salt Lake  
Secs. 23, 24 and 25: All.  
1,939.88 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6555 - 246  
T. 17 S., R. 12 E., Salt Lake

Secs. 26, 27 and 28: All.  
1,920.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6557 - 248  
T. 17 S., R. 12 E., Salt Lake  
Secs. 33, 34 and 35: All.  
1,920.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6558 - 249  
T. 18 S., R. 12 E., Salt Lake  
Secs. 1, 12 and 13: All.  
1,957.20 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6559 - 250  
T. 18 S., R. 12 E., Salt Lake  
Secs. 3, 10 and 11: All.  
1,957.80 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6560 - 251  
T. 18 S., R. 12 E., Salt Lake  
Secs. 4, 5 and 9: All.  
1,996.40 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6561 - 252  
T. 18 S., R. 12 E., Salt Lake  
Secs. 6, 7 and 8: All.  
2,212.25 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6562 - 253  
T. 18 S., R. 12 E., Salt Lake  
Secs. 14, 15, 22 and 23: All.  
2,560.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6563 – 254  
T. 18 S., R. 12 E., Salt Lake



Secs. 17, 18 and 19: All.  
2,169.42 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6564 - 255  
T. 18 S., R. 12 E., Salt Lake  
Secs. 20 and 29: All;  
Sec. 30: Lots 1-7, NE, E2NW, NESW, N2SE, SESE;  
Sec. 31: NENE.  
1,964.28 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6565 - 256  
T. 18 S., R. 12 E., Salt Lake  
Secs. 21, 27 and 28: All.  
1,920.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6566 - 257  
T. 18 S., R. 12 E., Salt Lake  
Sec. 24: Lots 1, 3, 4, N2, N2SW, SWSW, NWSE;  
Sec. 25: Lot 2, W2W2, SENW, NESW;  
Sec. 26: All.  
1,483.84 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6567 - 258  
T. 18 S., R. 12 E., Salt Lake  
Secs. 33, 34 and 35: All.  
1,920.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6568 - 259  
T. 19 S., R. 12 E., Salt Lake  
Sec. 4: All;  
Sec. 5: Lots 1-3, S2NE, SESW, SE;  
Sec. 8: All;  
Sec. 9: N2, NESE.  
2,098.87 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6569 - 260  
T. 19 S., R. 12 E., Salt Lake

Sec. 7: SE;  
Sec. 17: All;  
Sec. 18: E2, E2W2;  
Sec. 19: Lots 1, 4, NE, E2NW.

1,600.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6868 - 261  
T. 25 S., R. 12 E., Salt Lake  
Sec. 1: Lots 3-5, SWNW;  
Sec. 3: Lots 1, 2, 6-8, S2N2, S2;  
Sec. 4: SENE, S2SW, SE.

1,007.84 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6869 - 262  
T. 25 S., R. 12 E., Salt Lake  
Sec. 5: NWSE, NESW, S2S2;  
Secs. 6 and 7: All.

2,010.56 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6870 - 263  
T. 25 S., R. 12 E., Salt Lake  
Secs. 8, 9 and 10: All;  
Sec. 11: W2NE, W2, NWSE.

2,360.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6871 - 264  
T. 25 S., R. 12 E., Salt Lake  
Sec. 14: N2NW, SWNW, NWSW;  
Sec. 15: All.

800.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6872 - 265  
T. 25 S., R. 12 E., Salt Lake  
Secs. 17, 18, 19 and 20: All.

2,556.72 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6873 - 266

T. 25 S., R. 12 E., Salt Lake  
Sec. 21: All;  
Sec. 22: N2NE, SWNE, W2, NWSE.  
1,120.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6874 - 267  
T. 25 S., R. 12 E., Salt Lake  
Sec. 27: N2NW, SWNW, NWSW;  
Sec. 28: All.  
800.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6875 - 268  
T. 25 S., R. 12 E., Salt Lake  
Secs. 29, 30 and 31: All.  
1,919.44 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6876 - 269  
T. 25 S., R. 12 E., Salt Lake  
Sec. 33: N2NE, SWNE, W2, NWSE.  
480.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6909 - 270  
T. 26 S., R. 12 E., Salt Lake  
Sec. 3: Lots 4;  
Sec. 4: All.  
683.27 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6910 - 271  
T. 26 S., R. 12 E., Salt Lake  
Secs. 5, 6 and 7: All.  
1,907.15 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6911 - 272  
T. 26 S., R. 12 E., Salt Lake  
Sec. 8: All;  
Sec. 9: W2NE, W2.  
1,040.00 Acres

Emery County, Utah  
Price Field Office

UT1113 – 6913 - 274  
T. 26 S., R. 12 E., Salt Lake  
Secs. 17, 18 and 19: All;  
Sec. 20: W2NE, W2.  
2,245.24 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6916 - 277  
T. 26 S., R. 12 E., Salt Lake  
Sec. 29: W2NW;  
Sec. 30: All;  
Sec. 31: Lots 1-4, W2NE, E2W2.  
1,049.44 Acres  
Emery & Wayne Counties, Utah  
Price Field Office  
Richfield Field Office

UT1113 – 6570 - 279  
T. 12 S., R. 13 E., Salt Lake  
Secs. 1 and 11: All;  
Sec. 12: N2, N2SW, SESW, W2SE.  
1,735.48 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6571 - 280  
T. 12 S., R. 13 E., Salt Lake  
Sec. 3: All;  
Sec. 4: E2SE, SWSE;  
Secs. 9 and 10: All;  
Sec. 15: W2NW.  
1,846.48 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6572 - 281  
T. 12 S., R. 13 E., Salt Lake  
Secs. 7 and 8: All;  
Sec. 17: Lots 1, 2, N2NW;  
Sec. 18: Lot 1, N2NE, NENW.  
1,327.58 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6573 - 282

T. 12 S., R. 13 E., Salt Lake  
Sec. 13: Lots 1-9, NE, E2NW;  
Sec. 14: Lots 1-6, E2NW, SW;  
Secs. 23 and 24: All.

2,256.31 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6574 - 283  
T. 12 S., R. 13 E., Salt Lake  
Sec. 15: S2SW, E2SE;  
Sec. 22: Lots 1-3, S2NE, SENW, SE.

575.17 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6575 - 284  
T. 12 S., R. 13 E., Salt Lake  
Sec. 19: Lots 4, 5, 9.

107.64 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6576 - 285  
T. 13 S., R. 13 E., Salt Lake  
Sec. 1: Lots 1, 2, 4, S2SE.

199.41 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6577 - 286  
T. 13 S., R. 13 E., Salt Lake  
Sec. 13: W2SE, SESE;  
Sec. 23: Lot 4;  
Sec. 24: Lots 1, 2, SENW, SWSE;  
Sec. 25: E2NE, NWNE, SWNW;  
Sec. 26: All;  
Sec. 27: W2E2;  
Sec. 34: W2NE, SE;  
Sec. 35: W2NE, N2NW, SENW, S2SW, N2SE, SESE.

1,875.82 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6578 - 287                      Adjusted for Coal Conflicts  
T. 13 S., R. 13 E., Salt Lake  
Sec. 19: Lot 4;  
Sec. 30: Lots 1, 2;  
Sec. 33: SWNW.

184.91 Acres

UT1113 – 6579 - 288

T. 14 S., R. 13 E., Salt Lake

COAL CONFLICTS

Sec. 1: Lot 4, 7, S2NW, NESW, W2SE;

Sec. 3: Lot 4;

Sec. 10: NE, E2NW, N2SE, SESE;

Secs. 11 and 12: All.

1,982.80 Acres

Carbon County, Utah

Price Field Office

UT1113 – 6581 - 290

T. 14 S., R. 13 E., Salt Lake

COAL CONFLICTS

Secs. 13, 14 and 15: All.

1,920.00 Acres

Carbon County, Utah

Price Field Office

UT1113 – 6583 - 292

T. 14 S., R. 13 E., Salt Lake

COAL CONFLICTS

Secs. 22, 23 and 27: All.

1,921.00 Acres

Carbon County, Utah

Price Field Office

UT1113 – 6584 - 293

T. 14 S., R. 13 E., Salt Lake

COAL CONFLICTS

Secs. 24, 25 and 26: All.

1,924.08 Acres

Carbon County, Utah

Price Field Office

UT1113 – 6586 - 295

T. 15 S., R. 13 E., Salt Lake

Sec. 1: Lot 4.

40.28 Acres

Carbon County, Utah

Price Field Office

UT1113 – 6590 - 299

T. 17 S., R. 13 E., Salt Lake

Secs. 3, 4 and 10: All;

Sec. 9: NE, NENW, W2W2, SESW, E2SE.

2,354.55 Acres

Emery County, Utah

Price Field Office

UT1113 – 6591 - 300

T. 17 S., R. 13 E., Salt Lake  
Secs. 5, 7 and 8: All.  
1,902.08 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6592 - 301  
T. 17 S., R. 13 E., Salt Lake  
Secs. 13 and 14: All;  
Sec. 15: N2, N2SW, SE;  
Sec. 24: N2, N2SW, SESW, SE.  
2,440.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6593 - 302  
T. 17 S., R. 13 E., Salt Lake  
Secs. 17, 18 and 19: All.  
1,958.96 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6594 - 303  
T. 17 S., R. 13 E., Salt Lake  
Sec. 20: All;  
Sec. 21: S2NE, W2, SE;  
Sec. 22: E2, S2NW, SW;  
Sec. 23: N2NE, W2.  
2,160.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6595 - 304  
T. 17 S., R. 13 E., Salt Lake  
Sec. 25: S2NW, SW;  
Secs. 26, 27 and 28: All.  
2,160.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6596 - 305  
T. 17 S., R. 13 E., Salt Lake  
Secs. 29, 30 and 31: All.  
1,977.64 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6597 - 306  
T. 17 S., R. 13 E., Salt Lake

Secs. 33, 34, 35 and 36: All.  
1,960.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6598 - 307  
T. 18 S., R. 13 E., Salt Lake  
Secs. 1, 11 and 12: All.  
2,089.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6599 - 308  
T. 18 S., R. 13 E., Salt Lake  
Secs. 3, 4 and 10: All.  
2,073.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6600 - 309  
T. 18 S., R. 13 E., Salt Lake  
Secs. 5, 8 and 9: All.  
2,008.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6601 - 310  
T. 18 S., R. 13 E., Salt Lake  
Secs. 6, 7 and 18: All.  
2,012.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6602 - 311  
T. 18 S., R. 13 E., Salt Lake  
Secs. 13, 14 and 15: All.  
1,970.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6603 - 312  
T. 18 S., R. 13 E., Salt Lake  
Secs. 17, 20 and 21: All;  
Sec. 19: All, excluding MS 5174.  
2,530.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6604 - 313



T. 18 S., R. 13 E., Salt Lake  
Secs. 22, 23 and 24: All.  
1,977.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6605 - 314  
T. 18 S., R. 13 E., Salt Lake  
Secs. 25, 26 and 35: All.  
1,963.68 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6606 - 315  
T. 18 S., R. 13 E., Salt Lake  
Secs. 27, 28, 33 and 34: All.  
2,560.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6607 - 316  
T. 18 S., R. 13 E., Salt Lake  
Secs. 29, 30 and 31: All.  
1,925.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6608 - 317  
T. 19 S., R. 13 E., Salt Lake  
Secs. 4, 5, 8 and 9: All.  
2,376.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6609 - 318  
T. 19 S., R. 13 E., Salt Lake  
Secs. 6, 7, 17 and 18: All.  
2,404.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6610 - 319  
T. 19 S., R. 13 E., Salt Lake  
Sec. 14: W2E2, W2;  
Sec. 15: All.  
1,120.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6611 - 320  
T. 19 S., R. 13 E., Salt Lake  
    Sec. 20: E2NE, NESE;  
    Secs. 21 and 22: All;  
    Sec. 23: W2E2, W2.  
1,880.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6613 - 322  
T. 19 S., R. 13 E., Salt Lake  
    Sec. 29: S2SW;  
    Sec. 30: SW, S2SE;  
    Sec. 31: All.  
925.50 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6746 - 325  
T. 23 S., R. 13 E., Salt Lake  
    Sec. 1: All  
    Sec. 5: Lots 1-4.  
797.56 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6748 - 327  
T. 23 S., R. 13 E., Salt Lake  
    Sec. 11: E2NE, NESE;  
    Sec. 12: All.  
760.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6749 - 328  
T. 23 S., R. 13 E., Salt Lake  
    Sec. 13: All;  
    Sec. 14: SESW, SE.  
840.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6751 - 330  
T. 23 S., R. 13 E., Salt Lake  
    Sec. 23: E2, NW, E2SW;  
    Sec. 24: All.  
1,200.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6752 - 331  
T. 23 S., R. 13 E., Salt Lake  
    Sec. 25: NWNE, W2;  
    Sec. 26: E2, E2W2, SWSW.  
880.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6754 - 333  
T. 23 S., R. 13 E., Salt Lake  
    Sec. 34: E2SE;  
    Sec. 35: All.  
720.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6791 - 335  
T. 24 S., R. 13 E., Salt Lake  
    Sec. 3: Lots 1-3, 6-8, S2N2, S2;  
    Sec. 10: N2, SW, NWSE.  
1,178.09 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6793 - 337  
T. 24 S., R. 13 E., Salt Lake  
    Sec. 8: S2SE;  
    Sec. 9: E2, SENW, SW;  
    Sec. 17: E2, E2NW, SWNW, SW.  
1,120.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6794 - 338  
T. 24 S., R. 13 E., Salt Lake  
    Sec. 15: NWNW.  
40.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6795 - 339  
T. 24 S., R. 13 E., Salt Lake  
    Sec. 18: E2SE, SWSE;  
    Sec. 19: Lots 2-4, E2, E2W2;  
    Sec. 20: All.  
1,235.30 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6797 - 341  
T. 24 S., R. 13 E., Salt Lake  
    Sec. 29: NWNE, NW, NWSW;  
    Sec. 30: All;  
    Sec. 31: Lots 1-4, N2NE, SWNE, E2NW, NESW.  
1,269.60 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6616 - 362  
T. 12 S., R. 14 E., Salt Lake  
    Sec. 1: All;  
    Sec. 3: Lots 5, 6, 9-15, SE;  
    Sec. 4: Lots 3, 4;  
    Sec. 5: Lots 1, 4, SWNW.  
1,285.03 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6617 - 363  
T. 12 S., R. 14 E., Salt Lake  
    Sec. 7: Lots 1-4, NWNE, SENE, NENW, SESW, E2SE, SWSE;  
    Sec. 18: All;  
    Sec. 19: Lots 1-9, 11, 12, NE.  
1,790.40 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6618 - 364  
T. 12 S., R. 14 E., Salt Lake  
    Sec. 17: All.  
640.00 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6619 - 365  
T. 12 S., R. 14 E., Salt Lake  
    Sec. 34: SESE.  
40.00 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6620 - 366  
T. 13 S., R. 14 E., Salt Lake  
    Sec. 6: Lot 2, SESE;  
    Sec. 7: NENE, W2NE, E2W2.  
399.86 Acres  
Carbon County, Utah

Price Field Office

UT1113 – 6621 - 367

T. 13 S., R. 14 E., Salt Lake

Sec. 12: SESE;

Sec. 13: N2N2;

Sec. 14: N2NE, E2NW, SWNW;

Sec. 15: NESE, SWSE.

480.00 Acres

Carbon County, Utah

Price Field Office

UT1113 – 6622 - 368

T. 13 S., R. 14 E., Salt Lake

Sec. 18: Lots 2-4, NENW, NESW;

Sec. 19: Lots 1-4, W2NE, SENE, E2W2, SE;

Sec. 20: S2NW, SW;

Sec. 29: E2W2, SWNW, NWSW, SE;

Sec. 30: Lots 1-4, N2NE, NENW, SESW, S2SE.

1,843.42 Acres

Carbon County, Utah

Price Field Office

UT1113 – 6623 - 369

T. 13 S., R. 14 E., Salt Lake

Sec. 21: E2NE, NESE;

Sec. 27: N2, E2SW;

Sec. 34: S2SW.

600.00 Acres

Carbon County, Utah

Price Field Office

UT1113 – 6625 - 371

T. 14 S., R. 14 E., Salt Lake

Sec. 4: Lot 4, SWNW, W2SW;

Sec. 5: Lots 1-4, SENE, SWNW, S2;

Sec. 6: Lot 6, NESW;

Sec. 7: Lots 3, 4;

Sec. 8: All;

Sec. 17: N2NW, SWNW, N2SE;

Sec. 18: Lot 1, E2NW.

1,826.51 Acres

Carbon County, Utah

Price Field Office

COAL CONFLICTS

UT1113 – 6626 - 372

T. 14 S., R. 14 E., Salt Lake

Sec. 11: SENE, E2SE;

Sec. 12: SWSW;

Sec. 13: SWNE, W2, W2SE;  
 Sec. 24: E2NE, NWNE;  
 Sec. 25: NWNW.

760.00 Acres

Carbon County, Utah

Price Field Office

UT1113 – 6627 - 373

T. 14 S., R. 14 E., Salt Lake

Sec. 30: Lots 1-4, E2SW;

Sec. 31: Lot 1, NENW.

313.25 Acres

Carbon County, Utah

Price Field Office

UT1113 – 6628 - 374

T. 16 S., R. 14 E., Salt Lake

Sec. 3: Lots 2, 4;

Sec. 4: Lots 1-7, 10-12, N2SW.

486.67 Acres

Emery County, Utah

Price Field Office

COAL CONFLICTS

UT1113 – 6629 - 375

T. 16 S., R. 14 E., Salt Lake

Sec. 3: Lots 9, 10, NESW, SE;

Sec. 9: NENE, SWNE, SESE;

Sec. 10: N2, SW, N2SE, SWSE;

Sec. 11: All;

Sec. 12: N2, SW, E2SE, SWSE.

2,240.00 Acres

Emery County, Utah

Price Field Office

COAL CONFLICTS

UT1113 – 6630 - 376

T. 16 S., R. 14 E., Salt Lake

Sec. 13: W2NW, S2;

Sec. 14: All;

Sec. 15: SWNE, N2NW, SWNW, S2.

1,520.00 Acres

Emery County, Utah

Price Field Office

COAL CONFLICTS

UT1113 – 6631 - 377

T. 16 S., R. 14 E., Salt Lake

Sec. 22: N2;

Sec. 23: All;

Sec. 24: S2NE, W2NW, SENW, S2.

1,480.00 Acres

COAL CONFLICTS

Emery County, Utah  
Price Field Office

UT1113 – 6632 - 378

T. 16 S., R. 14 E., Salt Lake

COAL CONFLICTS

Sec. 22: SWSE;

Sec. 25: N2, W2SW, SESW, SE;

Sec. 26: E2, E2NW, SWNW, SW;

Sec. 27: N2NE, W2, E2SE, SWSE.

1,760.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6633 - 379

T. 16 S., R. 14 E., Salt Lake

COAL CONFLICTS

Secs. 33, 34 and 35: All.

1,920.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6634 - 380

T. 17 S., R. 14 E., Salt Lake

COAL CONFLICTS

Secs. 1 and 11: All;

Sec. 12: N2, N2S2;

Sec. 13: W2NW, NWSW;

Sec. 14: All.

1,697.24 Acres

Emery County, Utah

Price Field Office

UT1113 – 6635 - 381

T. 17 S., R. 14 E., Salt Lake

Secs. 3 and 4: All.

1,337.84 Acres

Emery County, Utah

Price Field Office

UT1113 – 6636 - 382

T. 17 S., R. 14 E., Salt Lake

Secs. 8, 9, 10 and 15: All.

2,560.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6637 - 383

T. 17 S., R. 14 E., Salt Lake

Secs. 22 and 23: All;

Sec. 24: SWNW, W2SW.

948.40 Acres

Emery County, Utah  
Price Field Office

UT1113 – 6638 - 384  
T. 17 S., R. 14 E., Salt Lake  
Sec. 25: W2NW, SW;  
Secs. 26 and 27: All;  
Sec. 28: All, Excluding IL36.  
2,103.54 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6639 - 385  
T. 17 S., R. 14 E., Salt Lake  
Sec. 32: S2NE, N2SE;  
Sec. 33: All, Excluding IL 36;  
Secs. 34 and 35: All.  
1,618.97 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6640 - 386  
T. 18 S., R. 14 E., Salt Lake  
Secs. 1, 11, 12 and 13: All;  
Sec. 14: N2.  
1,566.60 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6641 - 387  
T. 18 S., R. 14 E., Salt Lake  
Secs. 3 and 4: All;  
Sec. 9: NE, W2NW, SENW;  
Sec. 10: N2, N2SW, E2SE;  
Sec. 15: NENE.  
2,083.80 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6642 - 388  
T. 18 S., R. 14 E., Salt Lake  
Sec. 5: Lots 1, 2, S2NE, SENW, E2SW, SE;  
Sec. 6: N2SE, SESE;  
Sec. 7: NENE;  
Sec. 8: N2NE, SENE, NENW, SWNW, SESW, S2SE.  
920.25 Acres  
Emery County, Utah  
Price Field Office



UT1113 – 6643 - 389  
T. 18 S., R. 14 E., Salt Lake  
Sec. 15: S2NW, SW;  
Sec. 21: All;  
Sec. 22: S2NE, W2, SE;  
Secs. 23 and 24: All.

2,286.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6643 - 389A  
T. 18 S., R. 14 E., Salt Lake  
Secs. 17, 18, 19 and 20: All.

2,535.60 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6644 - 390  
T. 18 S., R. 14 E., Salt Lake  
Secs. 25, 26, 27 and 28: All.

2,128.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6645 - 391  
T. 18 S., R. 14 E., Salt Lake  
Secs. 29 and 30: All.

1,268.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6646 - 392  
T. 18 S., R. 14 E., Salt Lake  
Secs. 33, 34 and 35: All.

1,920.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6648 - 394  
T. 19 S., R. 14 E., Salt Lake  
Secs. 3, 10 and 15: All.

1,820.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6648 - 394A  
T. 19 S., R. 14 E., Salt Lake  
Sec. 11: All;  
Sec. 12: W2W2;

Sec. 13: W2, SE;  
Sec. 14: All.

1,920.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6650 - 396  
T. 19 S., R. 14 E., Salt Lake  
Secs. 22, 23, 24 and 25: All.  
2,560.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6651 - 397  
T. 19 S., R. 14 E., Salt Lake  
Secs. 26, 27, 34 and 35: All.  
2,560.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6652 - 398  
T. 20 S., R. 14 E., Salt Lake  
Secs. 1, 12 and 13: All.  
1,921.08 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6657 - 403  
T. 20 S., R. 14 E., Salt Lake  
Secs. 19, 30 and 31: All.  
1,928.72 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6662 - 408  
T. 21 S., R. 14 E., Salt Lake  
Sec. 1: Lots 1-15, N2SW, SWSW;  
Sec. 11: NWNE, NW, W2SW.  
1,038.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6663 - 409  
T. 21 S., R. 14 E., Salt Lake  
Secs. 3, 9 and 10: All.  
2,277.20 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6664 - 410  
T. 21 S., R. 14 E., Salt Lake  
Sec. 4: All.

997.20 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6667 - 413  
T. 21 S., R. 14 E., Salt Lake  
Sec. 14: W2NW;  
Sec. 15: N2, SW, N2SE, SWSE;  
Sec. 22: NENW, W2W2.

880.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6669 - 415  
T. 21 S., R. 14 E., Salt Lake  
Sec. 20: SESE;  
Sec. 21: All;  
Sec. 27: W2W2;  
Sec. 28: E2, E2W2, NWNW;  
Sec. 29: NENE.

1,400.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6670 - 416  
T. 21 S., R. 14 E., Salt Lake  
Sec. 29: SWSE;  
Sec. 31: All.

665.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6671 - 417  
T. 21 S., R. 14 E., Salt Lake  
Sec. 33: NE, E2NW, SWNW, SW, W2SE.

520.00 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6673 - 419  
T. 22 S., R. 14 E., Salt Lake  
Sec. 4: Lots 2-4, SWNE, S2NW, S2;  
Sec. 9: E2E2, NWNE;  
Sec. 10: W2SW.

836.93 Acres  
Emery County, Utah

Price Field Office

UT1113 – 6674 - 420

T. 22 S., R. 14 E., Salt Lake

Sec. 5: Lots 3, 4, S2NW, SW;

Sec. 6: Lots 1-7, S2NE, SENW, NESW, N2SE, SESE;

Sec. 7: E2NE, SWNE, SESW, SE;

Sec. 8: W2NE, SENE, W2, SE;

Sec. 9: S2NW, SW.

1,986.69 Acres

Emery County, Utah

Price Field Office

UT1113 – 6676 - 422

T. 22 S., R. 14 E., Salt Lake

Sec. 15: W2, W2SE;

Sec. 21: All;

Sec. 22: All, excluding MS 6324;

Sec. 27: NWNW;

Sec. 28: N2N2;

Sec. 29: N2N2, SWNW.

2,061.782 Acres

Emery County, Utah

Price Field Office

UT1113 – 6677 - 423

T. 22 S., R. 14 E., Salt Lake

Secs. 17, 18, 19 and 20: All.

2,540.80 Acres

Emery County, Utah

Price Field Office

UT1113 – 6678 - 424

T. 22 S., R. 14 E., Salt Lake

Sec. 27: N2NE, SWNE, SESW, NWSE.

200.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6679 - 425

T. 22 S., R. 14 E., Salt Lake

Sec. 28: S2SW, SWSE;

Sec. 29: SESW, S2SE;

Sec. 30: Lots 1-4, N2NE, NENW, E2SW;

Sec. 31: Lots 1-4, W2NE, SENE, E2W2, SE;

Sec. 33: W2E2, W2, SESE.

1,689.40 Acres

Emery County, Utah

Price Field Office

UT1113 – 6944 - 426  
T. 23 S., R. 14 E., Salt Lake  
Sec. 4: Lots 2-4, SWNE, S2NW, N2SW, SWSW.  
358.65 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6945 - 427  
T. 23 S., R. 14 E., Salt Lake  
Secs. 5, 6 and 7: All;  
Sec. 8: N2, SW, NWSE  
2,397.18 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6948 - 430  
T. 23 S., R. 14 E., Salt Lake  
Sec. 17: NWNW;  
Sec. 18: Lots 1-4, NE, E2NW, NESW.  
459.58 Acres  
Emery County, Utah  
Price Field Office

UT1113 – 6681 - 461  
T. 12 S., R. 15 E., Salt Lake  
Sec. 1: All;  
Sec. 11: E2NE;  
Sec. 12: All.  
1,196.44 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6682 - 462  
T. 12 S., R. 15 E., Salt Lake  
Sec. 3: Lots 1-3, NESE, SWSE;  
Sec. 4: Lots 2-4, S2;  
Secs. 5 and 6: All.  
1,587.88 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6683 - 463  
T. 13 S., R. 15 E., Salt Lake  
Sec. 7: Lots 1-4, E2W2.  
274.20 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6684 - 464  
T. 14 S., R. 15 E., Salt Lake  
Sec. 31: Lot 4, E2SW, W2SE.  
198.85 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6685 - 465  
T. 15 S., R. 15 E., Salt Lake  
Sec. 5: SWNW, W2SW, SESW, SWSE;  
Sec. 6: Lot 2, S2NE, N2SE, SESE;  
Sec. 7: NENE;  
Sec. 8: N2, N2SW, SESW, SE;  
Sec. 9: W2SW;  
Sec. 17: E2, NENW.  
1,520.39 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6686 - 466  
T. 15 S., R. 15 E., Salt Lake  
Sec. 7: Lots 1-3, E2SW, SWSE;  
Sec. 18: Lot 2, NWNE, S2NE, SENW, SESW, E2SE, SWSE;  
Sec. 19: All;  
Sec. 20: SWNW, W2SW.  
1,351.24 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6687 - 467  
T. 15 S., R. 15 E., Salt Lake  
Sec. 20: NE, E2SE;  
Sec. 21: All;  
Sec. 22: E2NW, NWNW;  
Sec. 28: W2NE, W2.  
1,400.00 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6688 - 468  
T. 15 S., R. 15 E., Salt Lake  
Sec. 29: W2, SWSE;  
Sec. 30: Lots 1, 2, E2, E2NW;  
Sec. 31: Lots 1-3, NE, E2NW.  
1,198.09 Acres  
Carbon County, Utah  
Price Field Office

UT1113 – 6689 - 469

T. 20 S., R. 15 E., Salt Lake  
Sec. 5: W2SW;  
Sec. 8: W2.

400.00 Acres

Emery County, Utah  
Price Field Office

UT1113 – 6690 - 470

T. 20 S., R. 15 E., Salt Lake  
Secs. 6, 7 and 18: All.

2,046.44 Acres

Emery County, Utah  
Price Field Office

UT1113 – 6691 - 471

T. 20 S., R. 15 E., Salt Lake  
Sec. 11: N2SE;  
Sec. 12: S2NE, N2SW, SESW, SE;  
Sec. 13: E2, E2NW, SWNW, SW;  
Sec. 14: E2SW, SE;  
Sec. 23: NWNE, NENW.

1,386.00 Acres

Emery County, Utah  
Price Field Office

UT1113 – 6692 - 472

T. 20 S., R. 15 E., Salt Lake  
Sec. 17: W2, W2SE, SESE;  
Secs. 19 and 20: All.

1,759.88 Acres

Emery County, Utah  
Price Field Office

UT1113 – 6693 - 473

T. 20 S., R. 15 E., Salt Lake  
Sec. 21: W2W2, SESW;  
Sec. 27: NENW, S2N2, S2;  
Sec. 28: S2NE, W2, SE.

1,280.00 Acres

Emery County, Utah  
Price Field Office

UT1113 – 6694 - 474

T. 20 S., R. 15 E., Salt Lake  
Sec. 23: E2SE, SWSE;  
Sec. 24: S2;  
Secs. 25 and 26: All.

1,727.84 Acres

Emery County, Utah

Price Field Office

UT1113 – 6695 - 475

T. 20 S., R. 15 E., Salt Lake

Secs. 29, 30 and 31: All.

2,002.80 Acres

Emery County, Utah

Price Field Office

UT1113 – 6696 - 476

T. 20 S., R. 15 E., Salt Lake

Secs. 33, 34, 35 and 36: All.

1,948.95 Acres

Emery County, Utah

Price Field Office

UT1113 – 6697 - 477

T. 21 S., R. 15 E., Salt Lake

Sec. 1: All;

Sec. 11: NENE;

Sec. 12: Lots 1, 2, NWNE, N2NW.

1,309.66 Acres

Emery County, Utah

Price Field Office

UT1113 – 6698 - 478

T. 21 S., R. 15 E., Salt Lake

Sec. 3: Lots 1-16, NESW, SE;

Sec. 4: Lots 1-4, 6-10, 16.

1,375.68 Acres

Emery County, Utah

Price Field Office

UT1113 – 6705 - 525

T. 12 S., R. 16 E., Salt Lake

Sec. 14: N2;

Sec. 15: E2NE, NESE.

440.00 Acres

Carbon County, Utah

Price Field Office

UT1113 – 6706 - 526

T. 12 S., R. 16 E., Salt Lake

Sec. 17: N2, SE;

Sec. 18: Lots 1-4, NE, E2W2, W2SE;

Sec. 19: Lots 1-4, W2NE, E2NW, NESW.

1,550.72 Acres

Carbon County, Utah

Price Field Office



UT1113 – 6707 - 527

T. 12 S., R. 16 E., Salt Lake

Sec. 20: NE;

Sec. 21: W2NE, SENE, NW, N2SW, SESW, SWSE;

Sec. 28: W2NE, E2NW, N2SW, SWSW;

Sec. 29: S2SE.

1,000.00 Acres

Carbon County, Utah

Price Field Office

UT1113 – 6709 - 529

T. 20 S., R. 16 E., Salt Lake

Sec. 9: NWNW.

40.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6710 - 530

T. 20 S., R. 16 E., Salt Lake

Sec. 7: Lots 3-7;

Sec. 17: NW;

Sec. 18: Lots 1-4, SWNW, E2SW;

Sec. 19: Lots 1-3, NENE, E2NW, SESE.

931.66 Acres

Emery County, Utah

Price Field Office

UT1113 – 6711 - 531

T. 20 S., R. 16 E., Salt Lake

Sec. 30: Lots 1-4, E2W2;

Sec. 31: Lots 1-4, E2W2.

642.40 Acres

Emery County, Utah

Price Field Office

UT1113 – 6712 - 532

T. 21 S., R. 16 E., Salt Lake

Sec. 5: Lot 16;

Sec. 7: SESW.

80.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6935 - 576

T. 26 S., R. 17 E., Salt Lake

Secs. 12, 13, 24 and 25: All.

1,616.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6936 - 577

T. 26 S., R. 17 E., Salt Lake

Secs. 2, 11, 14, 23 and 26: All.

2,448.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6939 - 580

T. 26 S., R. 17 E., Salt Lake

Sec. 15: SESW, SE;

Sec. 21: SENE, S2;

Sec. 22: All.

1,200.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6941 - 582

T. 26 S., R. 17 E., Salt Lake

Secs. 27 and 28: All;

Sec. 29: E2, S2NW, SW.

1,709.00 Acres

Emery County, Utah

Price Field Office

UT1113 – 6942 - 583

T. 26 S., R. 17 E., Salt Lake

Sec. 30: S2N2, S2;

Sec. 31: All;

Sec. 32: E2, E2W2.

1,476.25 Acres

Emery & Wayne Counties, Utah

Price Field Office

Richfield Field Office

UT1113 – 6943 - 584

T. 26 S., R. 17 E., Salt Lake

Secs. 33, 34 and 35: All.

1,024.00 Acres

Emery & Wayne Counties, Utah

Price Field Office

Richfield Field Office

ACQUIRED LANDS

UT1113 – 6441 - 599

US Interest 50%

T. 19 S., R. 8 E., Salt Lake

Sec. 27: NWSE.  
40.00 Acres  
Emery County, Utah  
Price Field Office

## Appendix E – Comment Response

### APPENDIX E, COMMENTS AND RESPONSES

**Copies of the comment letters are available at the Price Field Office for review.**

**Castle Valley & Pensar Petroleum Comment 1:** Some respondents are concerned that all nominated parcels were not included in this Environmental Assessment (EA).

**BLM Response to Comment 1:** *BLM received 399 parcel nominations for the November 2013 Oil and Gas Lease Sale. The 399 parcels total acreage is approximately 656,845 acres. The Price Field Office does not have sufficient staff or time to analyze all 399 parcels in the time-frame required to make them available for the 2013 sale. The Field Office is required to do on-site inspections for each parcel and to analyze them fully in an EA.*

**Lionel Trepanier Comment 2:** A respondent asked why BLM did not analyze hydraulic fracturing (“fracking”) in this leasing EA.

**BLM Response to Comment 2:** *BLM protects ground water resources by the casing and cementing programs which are required by BLM regulations. The applications to permit to drill (APD) are reviewed by BLM petroleum engineers and geologist to assure that they meet BLM regulations and standards. The BLM’s existing hydraulic fracturing regulations are found at 43 CFR 3162.3-2. In a Federal Register Notice (May 11, 2012), BLM is proposing a new rule to regulate hydraulic fracturing on public land and Indian land. The rule would provide disclosure to the public of chemicals used in hydraulic fracturing on public land and Indian land, strengthen regulations related to well-bore integrity, and address issues related to flow back water. This rule is necessary to provide useful information to the public and to assure that hydraulic fracturing is conducted in a way that adequately protects the environment. Compliance with new rules and regulations, as they are developed, will be implemented in lease actions.*

**Lionel Trepanier Comment 3:** It is unreasonable to not provide a quantification of the greenhouse gas emissions and the impacts there from that can be anticipated to flow from the leasing of these parcels.

**BLM Response to Comment 3:** *See Interdisciplinary Team (ID Team) Checklist in Appendix C for an explanation of greenhouse gas and climate change in relationship to this leasing proposal. Also, see Attachment 1.*

**Lionel Trepanier Comment 4:** It is unreasonable to destroy the wilderness characteristics of any BLM lands.

**BLM Response to Comment 4:** *The Price Field Office 2008 Resource Management Plan Record of Decision (RMP-ROD) on page 35 under Non-WSA Lands with Wilderness Characteristics states: “There were 840,340 acres found to have wilderness characteristics during the inventory reviews and not selected for management of those characteristics in the Approved RMP. The reasons for this decision were varied and complex. In most cases it was because those lands were found to have other important resources or resource uses that would conflict with protection, preservation, or maintenance of the wilderness characteristics.” None of the proposed leases are within areas that the Price RMP protects for their wilderness attributes.*

**Lionel Trepanier Comment 5:** Impacts to the white-tailed prairie dog must be disclosed and prevent the leasing.

**BLM Response to Comment 5:** *See ID Team Checklist Appendix C BLM Sensitive Animal Species. There are documented observations and potential habitat for white-tailed prairie dog in some of the lease parcels. Lease stipulations and notices were applied to the parcels to protect potential white-tailed prairie dog habitat.*

**Lionel Trepanier Comment 6:** The analysis must disclose the potential for impacts to groundwater from fracking. The Analysis currently states there will be no groundwater impacts from the oil and gas development BUT you have failed to disclose the fracking chemicals that would be injected into the ground.

**BLM Response to Comment 6:** *See Comment Response 2.*

**Lionel Trepanier Comment 7:** The proposed impacts to the flood plains are illegal.

**BLM Response to Comment 7:** *The project area has no floodplains as defined by Executive Order 11988. Also, Utah BLM Riparian Management Policy (2005) states that no structures or ground-disturbing activities are allowed within the riparian area (floodplains). These policies are strictly enforced. As disclosed in the ID Team Checklist (Appendix C) no impacts to floodplains are anticipated.*

**Lionel Trepanier Comment 8:** The anticipated impacts to recreation areas should mandate that no leases be sold in such areas.

**BLM Response to Comment 8:** *The Price RMP-ROD designated lands that are open to leasing subject to constraints such as No Surface Occupancy and Controlled Surface Use. The 75 proposed parcels are located within BLM managed lands that the Price RMP designated as open for oil and gas leasing. Specific impacts to existing recreation areas will be analyzed in site-specific NEPA.*

**SUWA Comment 9:** ... the EA failed to account for the remaining 641 acres of the Cleveland Lloyd Dinosaur Quarry NNL that fall within parcels 6508, 6509, and 6510. The area within the 721-acre NNL must be withdrawn and the remaining area in the ACEC must have an NSO stipulation attached to it.

**BLM Response to SUWA Comment 9:** *The Price RMP-ROD (page 138) made unavailable the 80-acre Cleveland Lloyd Dinosaur Quarry National Natural Landmark to oil and gas leasing. The remaining 690 acres in the Cleveland Lloyd Dinosaur Quarry ACEC are open to oil and gas leasing, subject to No Surface Occupancy, as described in the RMP-ROD.*

**SUWA Comment 10:** ... BLM undertook a new Visual Resource Management Inventory. This inventory provided updated data on the presence of visual resources as well as provided updated information about VRM classifications within the Price area. *See BLM Price Field Office, Visual Resource Inventory (2011).*...Because the new VRM information is significant, BLM was required to consider it. Therefore, BLM must withdraw Parcel 6530 as well as parcels 6401, 6402, 6404, 6430, 6431, 6432, 6433, 6434, 6435, 6436, 6437, 6438, 6439, 6440, 6500, 6502, 6503, 6505, 6506, 6512, 6513, 6514, and 6541 to account for the unanalyzed change in visual resource classification.

**BLM Response to SUWA Comment 10:** *The Price RMP provides guidance for management of visual resources. The 2008 Price RMP determined that visual resources will be managed to preserve the*

existing character of the landscape on WSAs, Desolation Canyon National Historic Landmark, and six ACECs. Visual Resource Management classes will be as follows:

- VRM Class I: 598,000 acres
- VRM Class II: 342,000 acres
- VRM Class III: 1,248,000 acres
- VRM Class IV: 291,000 acres

*Post-RMP visual resource inventories (VRIs) have been completed for areas administered by the Price Field Office, however, the 2008 decision is current direction, unless a land use plan amendment process is completed.*

**SUWA Comment 11:** Threatened / Endangered / Sensitive Species -- Failure to Take a Hard Look: “Even more egregious, the EA failed to mention the Winkler pincushion cactus, a species that is listed under the Endangered Species Act and has identified habitat within proposed lease parcels. See id”. Also - Winkler pincushion cactus and the protection measures associated with it should have been included for parcels 6401, 6402, 6404, 6434, 6436, 6437, 6439, and 6440.

**BLM Response to SUWA Comment 11:** *The species range is defined as the extreme southwest of Emery County. According to the December 2007 Recovery Outline for San Rafael Cactus (*Pediocactus despainii*) and Winkler Cactus (*Pediocactus winkleri*), *p. winkleri* is known from four populations including Notom, North Fremont, Hartnet, and Cathedral Valley. See <http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?scode=Q2QB>. The species range includes north central Wayne County along the eastern boundary of Capitol Reef National Park from the vicinity of Highway 24 north to extreme southwest Emery County. There were no parcels south of I-70. As such there is currently no known potential habitat or individuals present in the parcels evaluated for sale. Stipulation T&E- 5 indicates that the parcels contains suitable habitat for federally listed plant species. This stipulation was applied to all the parcels in question. This stipulation requires site inventories and surveys where appropriate. After field visits and analysis, stipulation T&E-17 San Rafael Cactus was added to parcels 6401, 6402, 6404. See Appendix A of the EA.*

**SUWA Comment 12:** ...Failure to Comply with Section 7 of the Endangered Species Act. “[A]n agency cannot meet its section 7 obligations by relying on a Biological Opinion that is legally flawed or by failing to discuss information that would undercut the opinion's conclusions.” .... In the Lease Sale EA, BLM failed to disclose that most of the measures discussed in the Biological Opinion as necessary to mitigate harm to threatened and endangered species in the area were *not* incorporated as stipulations. Instead, BLM attached these measures to individual parcels as “lease notices.” These notices are on their face unenforceable...

**BLM Response to SUWA Comment 12:** *When an application for ground disturbing activities is received, BLM will comply with Section 7 of the ESA. The implementation of the conservation actions and other required mitigation from the lease specific consultation will be evaluated. As stated in the EA - Washington Office (WO) Instruction Memorandum (IM)-2002-174 directs that the BLM attach an Endangered Species Act stipulation to leases to protect threatened and endangered species along with other special status species. According to this stipulation, the BLM will not approve any ground-disturbing activity until consultation obligations under applicable requirements of the ESA have been fulfilled, including completion of any required procedure for formal or informal conference or consultation. BLM attaches lease notices to leases to give the company notice that these items will have to be complied with in the future development of the lease at the stage where the company makes*

*development proposals such as drilling a well. A detailed analysis of the proposal would be completed by BLM. The lease notices at that time will have a part in the detailed analysis and if appropriate, Conditions of Approval (COA) will be developed for the items of concern addressed in the lease notices. COAs are enforceable by BLM authorized officers.*

**SUWA Comment 13:** [There is a concern that BLM]...Failed to Consult with Fish and Wildlife Service (FWS).

**BLM Response to SUWA Comment 13:** *The Consultation with the FWS occurs at the BLM State Office level. Consultation will be completed as required.*

**SUWA Comment 14:** ...Last Chance townsendia and the protection measures associated with it should have been included for parcels 6433, 6434, 6435, 6436, 6438, and 6439. Winkler pincushion cactus and the protection measures associated with it should have been included for parcels 6401, 6402, 6404, 6434, 6436, 6437, 6439, and 6440.

**BLM Response to SUWA Comment 14:** *A field visit with the lead botanist for BLM Utah to the parcels in question verified that potential habitat did not exist within the parcels 6433, 6434, 6435, 6436, 6438, and 6439. Stipulation T&E-5 which is applied to all mentioned parcels requires site inventories and surveys where appropriate. For Winkler pincushion cactus, please see response to comment 11.*

**SUWA Comment 15:** ...BLM failed to take a hard look at the impacts of the lease sale on multiple species that may be harmed, including Mexican Spotted Owl, Ferruginous Hawk, White-tailed Prairie-dog, Kit Fox, Northern Goshawk, Burrowing Owl, Greater Sage-Grouse, and more. *See Species and Other Value Overlap with November 2013 Lease Parcels Spreadsheet (attached).* Instead of identifying impacts to species in the Lease Sale EA, BLM relied on the 2008 RMP and future project specific documents to examine impacts. ....Leasing more than 137,000 acres will have significant impacts on multiple species. Once individual projects are examined, the analyses for those projects will understate impacts to species. The cumulative impacts from the overall leasing of the parcels would be significant at the species level. Segmenting impacts will remove much of this significance. Moreover, BLM completely failed to consider the effectiveness of the protection measures placed in the EA. Because of these issues, and because of the fact that many negative impacts on species cannot be avoided once the leases are issued, the BLM must perform a more comprehensive analysis of the impacts of the project on threatened, endangered, and sensitive species. This further analysis is necessary to meet the requirements of the hard look standard.

**BLM Response to SUWA Comment 15:** *Every parcel nominated for lease is carefully analyzed using information collected by the BLM and the Utah Division of Wildlife's sensitive species data. Those parcels which are identified as containing sensitive species within the boundary are then required to have specific stipulations/notices attached to them to ensure that mitigation measures are in place to protect these species even prior to leasing. The act of leasing in a particular area does not ensure that impacts to sensitive species will occur. It's not until the lease is actually developed that potential impacts to these species could occur. Until an Application for Permit to Drill (APD) is submitted to the BLM office and a wildlife survey is conducted, the direct, indirect and cumulative impacts to sensitive species are unknown. Only when an APD is filed with the BLM can the impacts be identified and mitigation measures/best management practices (BMPs) be used to minimize or negate impacts to these sensitive species.*

**SUWA Comment 16:** [There is a concern that BLM] failed to Follow BLM Manual, Special Status Species Management, 6840. ...Greater Sage-Grouse and multiple other listed and sensitive species are

likely to be harmed by this project. ...Because the project is likely to violate the clear terms of BLM Manual 6840, BLM must further analyze the action and make changes which will prevent harm to sensitive species and promote the conservation of these species and their habitat.

**BLM Response to SUWA Comment 16:** *The ID Team Checklist Appendix C under ESA Animal Candidate Species states “None of the parcels are located in Greater Sage-grouse habitat according to UDWR data (March 2012.” Every parcel nominated for lease is carefully analyzed using information collected by the BLM and the Utah Division of Wildlife’s sensitive species data. Those parcels which are identified as containing sensitive species within the boundary are then required to have specific stipulations/notices attached to them to ensure that mitigation measures are in place to protect these species even prior to leasing. The act of leasing in a particular area does not ensure that impacts to sensitive species will occur. It’s not until the lease is actually developed that potential impacts to these species could occur. Until an Application for Permit to Drill (APD) is submitted to the BLM office and a wildlife survey is conducted, the direct, indirect and cumulative impacts to sensitive species are unknown. Only when an APD is filed with the BLM can the impacts be identified and mitigation measures/best management practices (BMPs) be used to minimize or negate impacts to these sensitive species.*

**SUWA Comment 17:** Water Quality and Hydrology. The EA violates NEPA because BLM failed to take a “hard look” at the environmental consequences of opening up more than 137,000 acres to oil and gas development.

**BLM Response to Comment 17:** *The Price RMP-ROD considered all lands within the PFO and made the following leasing decisions:*

*Within the PFO ROD/RMP (as maintained), Appendices R-3 (Stipulations for Surface Disturbing Activities), R-5 (Best Management Practices for Raptors and their Associated Habitats), and R-14 (Fluid Mineral Development Best Management Typical Practices) contain pertinent stipulations, lease notices and committed measures. The proposed action is in conformance with the applicable Land Use Plan because it is specifically provided for in the following decisions:*

**MLE-6 (page 125 PFO ROD/RMP)**

*Review all lease parcels prior to lease sale. If the Price Field Office determines that new resource data information or circumstances relevant to the decision is available at the time of the lease review that warrants changing a leasing allocation or specific lease stipulation, the Price Field Office will make appropriate changes through the plan maintenance or amendment process. The Price Field Office may also apply appropriate conditions of approval at the permitting stage to ensure conformance with the LUP and all applicable law, regulation, and policies. (Department of the Interior, 2008).*

**MLE-9 (page 126 PFO ROD/RMP)**

*Oil and gas leasing management will be conducted as shown on Map R-25a.*

- *Areas open to leasing subject to the standard terms and conditions of the lease form (1,161,000 acres)*
- *Areas open to leasing subject to moderate constraints (timing limitations; CSU, and lease notices) (467,000 acres)*
- *Areas open to leasing subject to major constraints (NSO) (282,000 acres)*
- *Areas unavailable to leasing (569,000 acres)*

*The combination of all restrictions on oil and gas development is shown on Map R-26a.*



*The proposed action is also consistent with PFO ROD/RMP decisions and objectives as they relate to the management of the following resources (including but not limited to): air quality, BLM natural areas, cultural resources, recreation, riparian, soils, water, vegetation, fish and wildlife, and Areas of Critical Environmental Concern (ACEC). Additional RMP decisions are specified in Chapter 3 of the EA or the ID team checklist. In addition, site visits were conducted on the proposed parcels to verify consistency with the PFO ROD/RMP.*

*In addition through the EA process stipulations and lease notices were added to parcels to mitigate potential impacts of oil and gas leasing. The Gold Book and Onshore Order #1 standards are required in all oil and gas activities to ensure that oil & gas construction and reclamation are done in an environmentally sound manner.*

**SUWA Comment 18:** In particular, BLM relied on outdated data and information in analyzing potential impacts to impaired waterways, even though current and reliable information was readily available.

**BLM Response to Comment 18:** *The outdated information has been replaced with the following updated table in the EA. The new table has fewer stream segments that are on the 303d list. The analysis has been updated to reflect the newer information.*

#### **Utah's 2010 303d List**

<i>Waterbody Name</i>	<i>Waterbody Description</i>	<i>Cause</i>
<i>Price River 3</i>	<i>Price River from Coal Creek confluence to Carbon Canal Diversion</i>	<i>Benthic-Macroinvertebrate Bioassessments</i>
<i>Upper San Rafael River</i>	<i>San Rafael River from Buckhorn Crossing to confluence of Huntington and Cottonwood Creeks</i>	<i>Benthic-Macroinvertebrate Bioassessments</i>
<i>Lower San Rafael River</i>	<i>San Rafael River from confluence with Green River to Buckhorn Crossing</i>	<i>Benthic-Macroinvertebrate Bioassessments</i>

**SUWA Comment 19:** The EA also confirms that BLM's proposed leasing will violate state water quality standards in violation of FLPMA.

**BLM Response to Comment 19:** *The EA supports state water quality standards by mitigating potential effects created by this action. The stipulations attached to the appropriate parcels are high country watershed (UT-S-156), steep slopes (UT-S-101), and water bodies (UT-S-126 and UT-S-127). In addition, the Gold Book and Onshore Order #1 standards are required in all oil and gas activities to ensure that oil & gas construction and reclamation are done in an environmentally sound manner.*

**SUWA Comment 20:** [There is a concern that].....BLM failed to properly analyze potential impacts to groundwater resources.

**BLM Response to Comment 20:** *The following change will be made to the Water Quality section of chapter 4, third paragraph: "There is a potential for impacts to groundwater levels and groundwater quality, but the standard practice of casing and cementing through the groundwater zones would mitigate impacts. In addition, a BLM petroleum engineer and geologist will review each APD's casing and cementing program to ensure all of BLM's requirements for resource protection, including groundwater protection, are met."*

**SUWA Comment 21:** Surface Water—There are five perennial rivers located in major watershed areas that have potential to be impacted by the proposed oil and gas leases: The Muddy, San Rafael, Price, Dirty Devil, and Green.

**BLM Response to Comment 21:** *The project area does not include the Muddy/Dirty Devil Drainage. The San Rafael and Price River water quality is protected by mitigation measures as listed in Chapter 4 Section 4.3.1.2. These two streams drain into the Green River which in turn would be unaffected. The EA has been modified to reflect the streams in the project area.*

**SUWA Comment 22:** [There is a concern that]... concentrated flows of pollutants will enter impaired waterways which already do not support identified basic uses or functions such as “Non-Game Fish and Other Aquatic Life.”

**BLM Response to Comment 22:** *BLM protects waterways from pollution by attaching Stipulations UT-S-126, UT-S-127, UT-S-156, UT-S-97, and UT-S-101 to the appropriate parcels. In addition, the Gold Book and Onshore Order #1 standards are required in all oil and gas activities to ensure that oil and gas construction and reclamation are done in an environmentally sound manner.*

**SUWA Comment 23:** The EA identifies three segments of the Price River, a segment of the San Rafael River, and a segment of Muddy Creek, that have recognized high TDS levels ... A segment of the Price River is also impaired due to high levels of dissolved oxygen and dissolved iron... These river segments are either “partially supporting” or “not supporting” their identified beneficial uses. [There is a concern that] ...Existing pollution control measures for these segments are “not stringent enough to implement any water quality standard applicable to such waters.”

**BLM Response to Comment 23:** *According to the new information from the 303d List (2010), only the San Rafael and Price River water quality could be potentially affected. To mitigate any potential effects to water quality, stipulations UT-S-126, UT-S-127, UT-S-156, UT-S-97, and UT-S-101 are attached to the appropriate parcels. And in addition, the BLM Gold Book standards and Onshore Order #1 are required in all oil and gas activities to ensure that oil and gas construction and reclamation are done in an environmentally sound manner.*

**SUWA Comment 24:** [There is a concern that] ... BLM relied on outdated information for 303(d) listings, and that all potentially impacted river segments were not included in the analysis.

**BLM Response to Comment 24:** *The outdated information has been replaced with the following updated table in the EA. The new table has fewer stream segments that are on the 303d list. The analysis has been updated to reflect the newer information.*

**Utah's 2010 303d List**

<i>Waterbody Name</i>	<i>Waterbody Description</i>	<i>Cause</i>
<i>Price River 3</i>	<i>Price River from Coal Creek confluence to Carbon Canal Diversion</i>	<i>Benthic-Macroinvertebrate Bioassessments</i>
<i>Upper San Rafael River</i>	<i>San Rafael River from Buckhorn Crossing to confluence of Huntington and Cottonwood Creeks</i>	<i>Benthic-Macroinvertebrate Bioassessments</i>
<i>Lower San Rafael River</i>	<i>San Rafael River from confluence with Green River to Buckhorn Crossing</i>	<i>Benthic-Macroinvertebrate Bioassessments</i>

**SUWA Comment 25:** [There is a concern] that Price River 3 was re-listed but this time for high levels of Benthic-Macroinvertebrate Bio-assessments.

**BLM Response to Comment 25:** *The bio-assessments are used by the State of Utah and others to analyze the water quality of a particular stream. To mitigate potential effects to water quality due to leasing, stipulations UT-S-126, UT-S-127, UT-S-156, UT-S-97, and UT-S-101 are attached to the appropriate parcels. The BLM Gold Book standards and Onshore Order #1 are required in all oil and gas activities to ensure that oil and gas construction and reclamation are done in an environmentally sound manner.*

**SUWA Comment 26:** A twenty-five mile segment of Huntington Creek cannot support its identified beneficial uses due to high selenium levels.

**BLM Response to Comment 26:** *This section of water is outside the project area.*

**SUWA Comment 27:** The EA does not analyze potential impacts to Gordon Creek, Pinnacle Creek, Upper Grassy Trail Creek, Cottonwood Creek, Rock Canyon Creek, Quitchupah Creek, or Ivie Creek, all listed as having non-supporting or partially-supporting segments.

**BLM Response to Comment 27:** *Gordon Creek, Pinnacle Creek, Quitchupah Creek and Ivie Creek are not within the project area. Rock Canyon Creek, Upper Grassy Trail and Cottonwood Creeks drain into the segment of the Price River that is in compliance with State Water Quality Standards. To mitigate any potential effects to water quality, stipulations UT-S-126, UT-S-127, UT-S-156, UT-S-97, and UT-S-101 are attached to the appropriate parcels. And in addition, the BLM Gold Book standards and Onshore Order #1 are required in all oil and gas activities to ensure that oil and gas construction and reclamation are done in an environmentally sound manner.*

**SUWA Comment 28:** NEPA's hard look doctrine required BLM to fully identify, analyze, consider and disclose to the public the impacts of the proposed action. ...NEPA procedures must insure that environmental information is available to . . . citizens before decisions are made and before actions are taken.

**BLM Response to Comment 28:** *The EA was made available for public review on June 14, 2013 for a 30 day review period. In the document, BLM fully identified, analyzed and disclosed to the public the impacts of this leasing proposal. Through the EA process stipulations and lease notices were added to parcels to mitigate potential impacts of oil and gas leasing. The Gold Book and Onshore Order #1 standards are required in all oil and gas activities to ensure that oil and gas construction and*

*reclamation are done in an environmentally sound manner. Further requirements needed to protect the human environment would be listed and required at the APD stage.*

**SUWA Comment 29:** The EA states the Proposed Action is in compliance with the Utah Rangeland Health Standards... The EA does not adequately protect watersheds from oil and gas development because it does not support their properly functioning physical conditions such as upland, riparian-wetland, and aquatic components, soil and plant conditions, and it harms “water quality, water quantity, and timing and duration of flow... Statements contained in the EA directly conflict with these established standards. First, oil and gas development removes the biologic crust and vegetation resulting in “accelerated erosion” rates... Secondly... soils in the PFO have a high potential for contributing salt and sediment to drainages, high susceptibility to water or wind erosion when disturbed, and high runoff potential.

**BLM Response to Comment 29:** *The four Utah Rangeland Health Standards include standards for soil, riparian and wetland areas, vegetation, and water quality. The EA analyzes hydrology, hydrologic conditions, soil and special status plants. These sections address indicators for evaluating the Standards for Rangeland Health including water quality, soil erosion, and vegetation in detail and stipulations were applied where appropriate to mitigate degradation to rangeland health standards. Additional mitigation will be developed when site-specific proposals are received by BLM on any parcels that are leased to ensure that the Standards for Rangeland Health are met. Application of Best Management Practices and standard operating procedures such as crowning and ditching all roads would mitigate potential degradation to the rangeland health standards at the watershed level. And in addition, implementation of BLM Gold Book standards and Onshore Order #1 will mitigate potential soil erosion which could result from oil and gas construction activities.*

**SUWA Comment 30:** Mitigation Proposed in the EA is Vague, Ambiguous and Otherwise Insufficient. In preparing an environmental assessment, BLM must include a discussion of possible mitigation measures to avoid adverse environmental impacts.

**BLM Response to Comment 30:** *BLM has included appropriate stipulations for lease parcels that were developed for the Price RMP to mitigate potential environmental impacts see Chapter 4 of the EA. Stipulations to mitigate effects on surface water and groundwater as well as other resources can be found in Appendix A of the EA. Mitigation will also be developed when site-specific proposals are received by BLM and analyzed at the APD stage. In addition, the BLM Gold Book standards and Onshore Order #1 are required on all oil and gas activities to ensure that oil and gas construction, drilling, production and reclamation activities are conducted in an environmentally sound manner.*

**SUWA Comment 31:** Proposed mitigation restricts oil and gas development near springs or in high-country watershed areas but is subject to vague and overly broad exceptions.

**BLM Response to Comment 31:** *Stipulation UT-126 NSO – Natural Springs was developed in the RMP to protect springs and while also allowing for the development of other resources.*

**SUWA Comment 32:** There is no discussion as to why BLM selected 7,000 feet as the appropriate cutoff point, or why a different elevation would not have been more prudent.

**BLM Response to Comment 32:** *The PFO RMP-ROD on page 41 states: “Timing limitation stipulations have also been applied in the Approved RMP to minimize watershed damage to watershed above 7,000 feet from surface disturbing activities during times when these soils are susceptible to erosion. Surface disturbing activities in watersheds during wet periods can cause deep rutting and runoff problems which*

*lead to increased erosion.”*

**SUWA Comment 33:** BLM proposed to limited surface disturbance or occupancy near natural springs ...unless “there are no practical alternatives” ...oil and gas development is favored over protection of natural springs and water quality and the limitation really does not protect these valuable water resources. BLM violated NEPA when it merely listed potential mitigation efforts but failed to adequately explain or apply them to the Proposed Action.

**BLM Response to Comment 33:** *The BLM uses Stipulation UT-126 NSO to protect natural springs and water quality.*

**SUWA Comment 34:** Air Quality and Climate Change. At SUWA’s request, Megan Williams, an air quality expert, prepared comments regarding air quality and climate change issues related to the proposed lease sale.

**BLM Response to Comment 34:** *See Attachment 1, BLM’s Response to Ms. Williams.*

**SUWA Comment 35:** [There is a concern that]...The EA Does Not Consider Impacts to Wilderness Character. BLM relies on the RMP decision that the lands with wilderness characteristics covered by these leases would not be managed for natural areas and would be available for leasing. However, this is a NEPA document that requires analysis of impacts. Neither the RMP nor the EA analyze the impacts on wilderness characteristics of these lands. There needs to be a discussion as to how the leases and development would affect; size, naturalness, opportunity for solitude or primitive recreation and supplemental values. BLM has consistently failed to provide such analysis. A basic fault with the decision in the RMP is it failed to consider the relative values of various lands with wilderness characteristics. All acres of lands with wilderness characteristics were considered the same and fungible. There was no consideration of the actual values that make up wilderness character. In wilderness, size matters. For example, Desolation Canyon is the largest remaining roadless area in the contiguous forty-eight states that is not a National Park or designated Wilderness. Any reduction in size should be considered a significant impact and irreversible, irretrievable commitment of resources.

**BLM Response to Comment 35:** *The 2008 Price RMP determined that 97,100 acres within the inventoried 840,340 acres would be managed for protection of their wilderness characteristics. The remaining 743,240 acres would be managed in accordance with the 2008 Price RMP direction utilizing a mix and variety of management actions. None of the parcels are located in wilderness study areas or natural areas where lands are protected for their wilderness characteristics.*

**SUWA Comment 36:** [There is a concern that]...the Price RMP Failed to Consider Important Resource Concerns. The EA relies on the Price RMP for environmental analysis here. However, the Price RMP suffers from a number of significant flaws in terms of environmental analysis. Because of this, the EA does not comply with NEPA’s hard look requirement. Among other things, the [2008] Price RMP failed to consider a no leasing alternative—particularly for these areas. The Price RMP failed to consider the impacts to air quality and many other resources. SUWA hereby reincorporates its comments on the submitted on the Price RMP.

**BLM Response to Comment 36:** *The Price Field Office is operating under the 2008 Price RMP and will do so until a new RMP is approved or the current RMP is amended.*

**SUWA Comment 37:** The BLM Has Not Considered the Effects of Eolian Dust Deposition from Oil and Gas Activities As Well As Other Cumulative Impacts on Mountain Snowpack.

**BLM Response to Comment 37:** See Attachment 1.

**Utah Division of Wildlife Resources (UDWR):**

**Note:** *The parcel IDs in the comments have been expanded to match the BLM lease sale parcel numbers.*

**UDWR Comment 38:** Sale IDs 30, 31, 60, 102, and 103. These parcels each contain **mule deer crucial wintering habitat**. UDWR recommends no construction, drilling or completion activities from December 1 to April 15.

**BLM Response to UDWR Comment 38:** *These parcels are not being offered for leasing in the November 2013 Lease Sale.*

**UDWR Comment 39:** Sale IDs 6491-180, 6492-181, 6493-182, 6530-221, 6531-222, 6532-223, 6533-224, 6535-226, 6536-227, 6578-287, 6580-289, 6582-291, and 6585-294. These parcels contain **mule deer crucial winter range**. UDWR recommends no construction, drilling or completion activities from December 1 to April 15.

**BLM Response to UDWR Comment 39:** *This issue identified by the UDWR will be adequately covered by the lease stipulations and lease notices addressed within this environmental assessment.*

**UDWR Comment 40:** Sale IDs 6472-161, 6494-183, 6495-184, 6496-185, 6499-188, 6500-189, 6501-190, 6502-191, 6503-192, 6504-193, 6505-194, 6506-195, 6507-196, 6508-197, 6509-198, 6510-199, 6511-200, 6512-201, 6513-202, 6514-203, 6534-225, 6540-231, 6541-232, 6542-233, 6543-234, 6544-235, 6545-236, 6546-237, 6546-237A, 6550-241, 6552-243, 6556-247, 6587-296, 6588-297, and 6589-298. These parcels are **crucial fawning habitat for pronghorn**. UDWR recommends no construction, drilling or completion activities from April 15 to June 15.

**BLM Response to UDWR Comment 40:** *The following parcels identified by the UDWR as containing crucial fawning habitat for pronghorn would have lease notice UT-LN-17 attached. ("The Lessee/operator is given notice that lands in this lease have been identified as containing crucial antelope fawning habitat. Exploration, drilling, and other development activities may be restricted from April 15 through June 15 to protect antelope fawning. Modifications may be required in the Surface Use Plan of Operations including seasonal timing restrictions to protect the species and its habitat.") 6472-161, 6494-183, 6495-184, 6496-185, 6499-188, 6500-189, 6501-190, 6502-191, 6503-192, 6504-193, 6505-194, 6506-195, 6507-196, 6508-197, 6509-198, 6510-199, 6511-200, 6512-201, 6513-202, 6514-203, 6534-225, 6540-231, 6541-232, 6542-233, 6543-234, 6544-235, 6545-236, 6546-237, 6546-237A, 6550-241, 6552-243, 6556-247, 6587-296, 6588-297, 6589-298.*

**UDWR Comment 41:** Sale IDs 6493-182, 6494-183, 6496-185, 6530-221, 6531-222, 6533-224, 6534-225, 6535-226, 6536-227, 6540-231, 6578-287, 6580-289, 6582-291, 6585-294, and 6653-399. There are known **raptor nests** within the proposed parcels. UDWR recommends raptor surveys if work needs to be done during raptor courtship, nesting and/or fledging [use U.S. Fish and Wildlife Service (USFWS) dates and spatial buffers for individual raptor species].

**BLM Response to UDWR Comment 41:** *The following parcels would have stipulation UT-S-260 applied to protect raptor nests that exist within those parcels: 6493-182, 6494-183, 6496-185, 6530-221, 6531-222, 6533-224, 6534-225, 6535-226, 6536-227, 6540-231, 6578-287, 6580-289, 6582-291, 6585-294, 6653-399.*

## **Attachment 1**

### **Response to Air Quality Comments**

BLM Utah Air Resource Specialist

---

SUWA in their comment letters regarding the Environmental Assessments (EA) for quarterly lease sales in both the Price and Vernal field offices state that both EA's are inadequate and should conduct quantitative analyses, including dispersion modeling, for air quality impacts on a host of issues, including: ozone, nitrogen dioxide, particulate matter, visibility, hazardous air pollutants, Prevention of Significant Deterioration, and greenhouse gas emissions on climate change. The BLM does not conduct quantitative analysis, and specifically dispersion modeling, when the activities under review cannot be adequately characterized as to emissions, sources, location, and/or duration. Leasing actions by their nature do not involve emission increases. Once specific development plans are proposed adequate air quality analysis can and will be conducted to determine impacts and appropriate mitigation if needed. This is consistent with interagency guidance in place, recent IBLA decisions, and recent court decisions. Examples of this guidance and decisions that specifically address BLM oil and gas leasing include:

*MEMORANDUM OF UNDERSTANDING AMONG THE U.S. DEPARTMENT OF AGRICULTURE, U.S. DEPARTMENT OF INTERIOR, AND U.S. ENVIRONMENTAL PROTECTION AGENCY, REGARDING AIR QUALITY ANALYSIS AND MITIGATION FOR FEDERAL OIL AND GAS DECISIONS THROUGH THE NATIONAL ENVIRONMENTAL POLICY ACT PROCESS*

V.D.1. If the Lead Agency cannot complete necessary quantitative analysis (e.g. if a reasonably foreseeable number of wells cannot be determined, see V.E.1), it will include in the appropriate NEPA documents:

- A qualitative narrative description of the air quality issues or impacts;
- A statement of when more detailed information will likely be available; and,
- A commitment to complete the air quality and AQRVs analysis once the requisite information is available.

*AMIGOS BRAVOS, v. UNITED STATES BUREAU OF LAND MANAGEMENT*

The court ruled in BLM's favor on plaintiffs' claim alleging that BLM violated NEPA by failing to prepare EISs before approving the quarterly oil and gas lease sales. The court found that the BLM's analysis of the lease sales in EAs was sufficient because a detailed analysis of ozone impacts prior to development plans would constitute a misallocation of resources given that lease development is uncertain. The court held that BLM's decision to defer additional analysis until receiving an APD was not arbitrary and capricious.

NEPA does not unduly burden agencies with analyzing environmental impacts that are not concrete enough to warrant an inquiry. Richardson, 565 F.3d at 717

*SOUTHERN UTAH WILDERNESS ALLIANCE, 2011 - 133 IBLA at 15*

While SUWA disagrees with BLM's judgment that specific source and emission data are needed in order for quantitative modeling to be effective, it has not provided the Board with objective proof that the reasoning that BLM must work from a specific development plan prior to conducting quantitative modeling contains a material error in the data, methodology, analysis, or conclusions of BLM's experts. Accordingly, we hold that BLM did not err in issuing the leases in question prior to conducting a full environmental analysis of impacts on ozone formation in the Uinta Basin.

*SOUTHERN UTAH WILDERNESS ALLIANCE, 2011 - 133 IBLA at 17*

Lastly, we address SUWA's argument that climate change requires BLM to prepare a supplemental EIS prior to issuing the six leases. We find that BLM's environmental analysis, declining to posit precise correlation between specific climatological changes or the environmental impacts thereof attributable to projected greenhouse gas emissions from the particular project, does not fall short of NEPA's "hard look" requirement for promoting informed decision making, where evidence in the record as to the state of the science confirms the speculative nature of such impacts. *Powder River Basin Resource Council*, 180 IBLA at 134. As in *Powder River Basin*, in this case SUWA did not support its claim that BLM failed in its duty under NEPA to extend its analysis in order to disclose and analyze the world-wide and local consequences resulting from the contribution of emissions from potential development on six oil and gas leases on global climate change.

---

Consistent with the guidance found in the interagency MOU on oil and gas decisions related to NEPA, the BLM qualitatively described air quality issues in their respective field offices (Vernal FO November 2013 Lease Sale EA Section 3.3, Price FO Lease Sale EA Section 3.3.1), and also explained when data would be available and that appropriate analysis, including dispersion modeling, will be conducted when specific projects are proposed (Vernal FO November 2013 Lease Sale EA Section 4.2.1.1, Price FO Lease Sale EA Section 4.3.1.1).

In addition, it should be noted that BLM is currently conducting extensive landscape scale modeling in the Uinta Basin to develop management strategies for oil and gas development based on a level of analysis that will be more detailed and comprehensive than anything previously attempted. BLM is also participating, funding, and conducting scientific studies to better understand winter ozone formation in the Uinta Basin, and will use the results of these studies in guiding analysis of any specific projects that may be authorized under these lease sales. BLM is not ignoring analysis, simply conducting it at the proper time and with the proper information to provide decision-makers with the best possible scientific analysis.